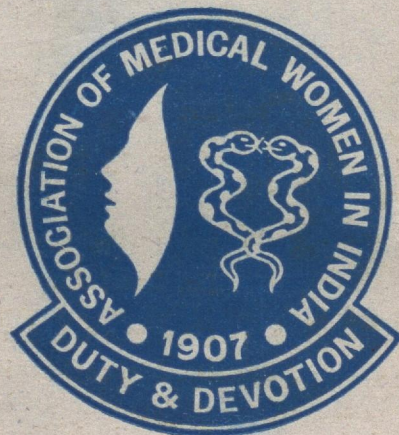


THE JOURNAL  
OF THE  
ASSOCIATION OF  
MEDICAL WOMEN  
IN INDIA



VOL. LXX

MAY-AUGUST, 1980

No. 2

## THE ASSOCIATION OF MEDICAL WOMEN IN INDIA

### OFFICE BEARERS:

|                            |   |                              |
|----------------------------|---|------------------------------|
| President                  | : | Dr. M. Catchatoor            |
| Vice President             | : | Dr. S. Gill<br>Dr. K. Virkar |
| Gen. Secretary & Treasurer | : | Dr. Dina Patel               |

### DIVISIONAL SECRETARIES:

|                             |   |   |
|-----------------------------|---|---|
| Bengal                      | : | Dr. S. Swarup-Mitra                       |
| Bombay                      | : | Dr. M. Pardiwala                          |
| Delhi                       | : | Dr. Urmila Sharma<br>Dr. Sabita Sabharwal |
| Latur                       | : | Dr. Leela Bajpai                          |
| National Corresp. Secretary | : | Dr. Juliet Desa Souza                     |

### EDITORIAL BOARD

|  |   |                                      |
|--|---|--------------------------------------|
| Editor   | : | Dr. Dinoo Dalal                      |
| Co-Editor  | : | Dr. Mohini Garud<br>Dr. Shobha Ghosh |
| Sub-Editors Anesthesiology                           | : | Dr. Tulsi Basu                       |
| General Practitioner<br>Preventive & Social Medicine | : | Dr. Meera Roy<br>Dr. Saroj Jha       |
| Pediatrics   | : | Dr. Shanti Indra<br>Dr. Meena Desai  |
| Physiology & Allied<br>Subjects including Pathology  | : | Dr. Sushila Swarup Mitra             |
| Obstetries & Allied branches                         | : | Dr. Arti Roy<br>Dr. Mehru Hansotia   |
| Surgery & Allied Branches                            | : | Dr. Joya Chaudhury                   |

# The Journal of the A. M. W. I.

VOL. LXX

MAY-AUGUST 1980

No. 2

## CONTENTS

|  |    |
|--|----|
| Perinatal Mortality and Caesarean Section Through the Ages<br>by Faram E. Irani <i>et al</i> .. . . .                            | 45 |
| Study of Perinatal Mortality in Breech Presentation in Primi-gravida<br>by Anil Ambedkar <i>et al</i> .. . . .                   | 49 |
| A 10 Years Study of Neonates Admitted to a Special Care Unit in a Private Hospital<br>by Maharukh K. Joshi <i>et al</i> .. . . . | 54 |
| Torsion of a Theca Lutein Ovarian Cyst in a Case of Vesicular Mole<br>by U. S. Bhagwat <i>et al</i> .. . . .                     | 60 |
| Robert's Syndrome<br>by Z. M. Patel <i>et al</i> .. . . .  | 63 |
| Balance Sheet .. . . .   | 67 |

NOTE: Complete list of various Indian & Foreign Journals can be had on request from the Editor, The Journal of the A.M.W.I., 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

Please send us lowest quotation for the following medical journals:

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_  
 Pin Code: \_\_\_\_\_

leo  
 men  
 434

## THE ASSOCIATION OF MEDICAL WOMEN IN INDIA

### OFFICE BEARERS:

|                            |   |                              |
|----------------------------|---|------------------------------|
| President                  | : | Dr. M. Catchatoor            |
| Vice President             | : | Dr. S. Gill<br>Dr. K. Virkar |
| Gen. Secretary & Treasurer | : | Dr. Dina Patel               |

### DIVISIONAL SECRETARIES:

|                             |   |   |
|-----------------------------|---|---|
| Bengal                      | : | Dr. S. Swarup-Mitra                       |
| Bombay                      | : | Dr. M. Pardiwala                          |
| Delhi                       | : | Dr. Urmila Sharma<br>Dr. Sabita Sabharwal |
| Latur                       | : | Dr. Leela Bajpai                          |
| National Corresp. Secretary | : | Dr. Juliet Desa Souza                     |

### EDITORIAL BOARD

|  |   |                                      |
|--|---|--------------------------------------|
| Editor   | : | Dr. Dinoo Dalal                      |
| Co-Editor  | : | Dr. Mohini Garud<br>Dr. Shobha Ghosh |
| Sub-Editors Anesthesiology                           | : | Dr. Tulsi Basu                       |
| General Practitioner<br>Preventive & Social Medicine | : | Dr. Meera Roy<br>Dr. Saroj Jha       |
| Pediatrics   | : | Dr. Shanti Indra<br>Dr. Meena Desai  |
| Physiology & Allied<br>Subjects including Pathology  | : | Dr. Sushila Swarup Mitra             |
| Obstetries & Allied branches                         | : | Dr. Arti Roy<br>Dr. Mehru Hansotia   |
| Surgery & Allied Branches                            | : | Dr. Joya Chaudhury                   |

Printed by Dr. D. Dalal at the Popular Press (Bombay) Pvt. Ltd., 35-C Tardeo Road, Bombay-400 034, and published by her for The Association of Medical Women in India, IMA Building, 16, Haji Ali Park, Keshavrao Khadye Marg, Bombay-400 034.

# The Journal of the A. M. W. I.

VOL. LXX

MAY-AUGUST 1980

No. 2

## CONTENTS

|   |    |
|---|----|
| Perinatal Mortality and Caesarean Section Through the Ages<br>by Faram E. Irani <i>et al</i> .. . . .                               | 45 |
| Study of Perinatal Mortality in Breech Presentation in Primi-<br>gravida<br>by Anil Ambedkar <i>et al</i> .. . . .                  | 49 |
| A 10 Years Study of Neonates Admitted to a Special Care Unit<br>in a Private Hospital<br>by Maharukh K. Joshi <i>et al</i> .. . . . | 54 |
| Torsion of a Theca Lutein Ovarian Cyst in a Case of Vesicular<br>Mole<br>by U. S. Bhagwat <i>et al</i> .. . . .                     | 60 |
| Robert's Syndrome<br>by Z. M. Patel <i>et al</i> .. . . .   | 63 |
| Balance Sheet .. . . .  | 67 |

NOTE: Complete list of various Indian & Foreign Journals can be had on demand.

CONTACT: International Marketing Company, 11, Mod Street, Fort, Bombay 400 001. Phone 281222

511 Post Box No. 618, Fort, Bombay 400 001. Phone 281222

SUBS. ORDER SLIP

Please send us lowest quotation for the following medical journals:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

Pin Code: \_\_\_\_\_

deo  
men  
384

**SPECIAL OFFER FOR MEDICAL PROFESSIONALS****15% Discount upto October, 1980**

- |   |   |
|---|---|
| 1. American Heart Journal                       | 27. British Journal of Plastic Surgery                          |
| 2. American Journal of Cardiology               | 28. British Journal of Radiology                                |
| 3. American Journal of Clinical Pathology       | 29. British Journal of Surgery                                  |
| 4. American Journal of Diseases of Children     | 30. British Journal of Urology                                  |
| 5. American Journal of Gastroenterology         | 31. British Journal of Veneral Diseases                         |
| 6. American Journal of Hospital Pharmacy        | 32. British Medical Journal                                     |
| 7. American Journal of Medical Sciences         | 33. British Medical Bulletin                                    |
| 8. American Journal of Medicine                 | 34. Clinical Pharmacology & Therapeutics                        |
| 9. American Journal of Obstetrics & Gynaecology | 35. Current Problems in Surgery                                 |
| 10. American Journal of Pathology               | 36. Diabetes  |
| 11. American Journal of Physical Medicine       | 37. GUT   |
| 12. American Journal of Surgery                 | 38. Journal of American Medical Association                     |
| 13. American Journal of Tropical Medicine       | 39. Journal of Laboratory & Clinical Medicine                   |
| 14. American Journal of Occupational Therapy    | 40. British Journal of Pathology                                |
| 15. Annals of Allergy                           | 41. British Journal of Obstetrics & Gynaecology                 |
| 16. Annals of Internal Medicine                 | 42. Journal of Obstetrics & Gynaecology of British Commonwealth |
| 17. Annals of Surgery                           | 43. Journal of Pediatric Surgery                                |
| 18. Archives of Internal Medicine               | 44. Journal of Pediatrics                                       |
| 19. Archives of Surgery                         | 45. Journal of Tropical Medicine & Hygiene                      |
| 20. British Heart Journal                       | 46. Laboratory Practice   |
| 21. British Journal of Addiction                | 47. The Lancet Weekly   |
| 22. British Journal of Anesthesia               | 48. Medical Clinics of North America                            |
| 23. British Journal of Dermatology              | 49. The Practitioner  |
| 24. British Journal of Hospital Medicine        | 50. Surgical Clinics of North America.                          |
| 25. British Journal of Industrial Medicine      | 51. New England Journal of Medicine                             |
| 26. British Journal of Pharmacology             | 52. World Medicine  |

**NOTE:** Complete list of various Indian & Foreign Journals can be had on demand.

**CONTACT:** International Magazine Company, 164, Modi Street,  
Post Box No. 618, Fort, Bombay 400 001, Phone 264233.

**SUBS. ORDER SLIP**

Please send us lowest quotation for the following medical journals:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

Pin Code: \_\_\_\_\_

## PERINATAL MORTALITY AND CAESAREAN SECTION THROUGH THE AGES

By

**Faram. E. Irani,\* M.B.,B.S.**

**Adi. E. Dastur,\*\* M.D., F.C.P.S., D.G.O., D.F.P.**

**Dina. N. Patel,\*\*\* M.D., F.C.P.S., F.I.C.S.**

The Department of Obstetrics and Gynaecology, Nowrosjee Wadia Maternity Hospital, Bombay.

The concomitant advances in surgical techniques, the improvement in anaesthesia, the increased availability of blood for transfusion and the use of antibiotics and chemotherapy have resulted in material reduction of the mortality associated with Caesarean Section and have permitted broadening of the obstetric indications for abdominal delivery. The avoidance of traumatic pelvic delivery with its associated high foetal mortality is a desirable goal. Keeping this in mind we have carried out a retrospective study of 6699 Caesarean Sections at the Nowrosjee Wadia Maternity Hospital, Bombay over a period of 49 years from 1929 to 1977.

Caesarean Section during the past 35 years has become an increasingly popular operation. The rise in incidence has been especially noteworthy in our Hospital since the mid 1960's. There are several valid reasons for this upsurge in the frequency of use, but the basic justification lies in the lowering of maternal mortality with an increasingly foetal salvage rate as compared with certain operative means of vaginal delivery. The fundamental concern today is not an arbitrary percentage incidence of Caesarean delivery but what is the best method of delivery for mother and baby when intercurrent disease exists or obstetric complications arise.

TABLE I

*Incidence of Caesarean Section, Perinatal and Maternal Mortality*

| Years   | Incidence Caesarean Section | Perinatal Mortality | Maternal Mortality |
|---------|-----------------------------|---------------------|--------------------|
| 1929-35 | 0.47%                       | 12.00%              | 1.88%              |
| 1936-42 | 0.56%                       | 14.00%              | 1.88%              |
| 1943-49 | 1.00%                       | 9.88%               | 1.27%              |
| 1950-56 | 1.35%                       | 7.49%               | 0.55%              |
| 1957-63 | 2.10%                       | 7.00%               | 0.45%              |
| 1964-70 | 2.86%                       | 6.49%               | 0.32%              |
| 1971-77 | 3.40%                       | 5.50%               | 0.15%              |

\*House Surgeon.

\*\*Assistant Honorary.

\*\*\*Dean and Honorary.

The overall incidence of Caesarean Section at our Hospital has risen from 0.47% in 1929 to 3.40% in 1977 (Table I). That this has been a rewarding trend is shown by the decline in maternal and foetal mortality.

TABLE II  
Changing Indications for Caesarean Section

| Indications                | 1929-35 | 1936-42 | 1942-49 | 1950-56 | 1957-63 | 1964-70 | 1971-77 |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|
| Foeto-pelvic disproportion | 69.5%   | 78.2%   | 49.3%   | 51.5%   | 29.0%   | 20.0%   | 30.3%   |
| Antepartum haemorrhage     | —       | —       | 14.8%   | 8.8%    | 10.6%   | 13.4%   | 8.0%    |
| Previous Caesarean Section | —       | —       | —       | 9.5%    | 22.1%   | 23.0%   | 19.6%   |
| Failed forceps             | —       | —       | —       | 4.2%    | 1.6%    | 1.5%    | 0.5%    |
| Abnormal presentation      | —       | —       | —       | 5.0%    | 11.7%   | 14.3%   | 9.8%    |
| Abnormal uterine Action    | —       | —       | —       | 4.5%    | 2.5%    | 3.4%    | 1.9%    |
| Foetal distress            | —       | —       | 11.9%   | 6.7%    | 4.8%    | 12.7%   | 20.6%   |
| Cord prolapse              | —       | —       | —       | 4.0%    | 6.5%    | 7.5%    | 4.4%    |
| Osteomalacia               | 13.9%   | 11.9%   | 8.2%    | —       | —       | —       | —       |
| Miscellaneous              | 16.6%   | 9.9%    | 15.8%   | 4.8%    | 11.2%   | 4.2%    | 4.9%    |
| TOTAL                      | 100.0%  | 100.0%  | 100.0%  | 100.0%  | 100.0%  | 100.0%  | 100.0%  |

Foeto-pelvic disproportion constituted 69.5% of our indications for Caesarean Section in 1929-35, but with the continuing use of x-ray pelvimetry and more reliance on trial labour in evaluating the ability of the patient to deliver from below, the incidence has now fallen to 30.3% by 1977. The category previous Caesarean Section increased in incidence during the years 1950-63, peaking at 22.1%, as being amongst the leading indications for Caesarean Section. In part, this rise reflected an increase in parity of women with previous Caesarean Section and a change in thought regarding the concept of what constitutes an indication. A reversal of this trend is noted in the last seven years. Partly as a result of expanded use of Caesarean Section for patients with problems of foetal distress and abnormal presentation and partly also because of a significant decline in family size including Caesarean parity, previous Caesarean Section as the operative indication dropped to 19.6% in 1971-77. Increased awareness of improved perinatal salvage in abdominal delivery as compared with vaginal delivery in unfavourable presentations is reflected in a rise in incidence of Caesarean Section in this category.

Osteomalacia with severe kyphoscoliosis was an indication for Caesarean Section during 1929-49. The deformity was so marked in some patients that they were unable to lie in the supine position on the operating table and a special position was given. Due to good nutrition, one hardly sees cases of osteomalacia these days. As the incidence of Caesarean Section has increased over the ages, the incidence of destructive

operations and versions has decreased considerably to almost negligible during the last ten years.

TABLE III  
*Perinatal Mortality and Perinatal Mortality in Caesarean Section*

| Years   | Perinatal Mortality | Perinatal Mortality in Caesarean Section |
|---------|---------------------|--|
| 1929-35 | 12.00%              | 16.00%                                   |
| 1936-42 | 14.00%              | 12.00%                                   |
| 1943-49 | 9.88%               | 5.75%                                    |
| 1950-56 | 7.49%               | 5.47%                                    |
| 1957-63 | 7.00%               | 5.20%                                    |
| 1964-70 | 6.49%               | 4.90%                                    |
| 1971-77 | 5.50%               | 4.00%                                    |

Table III shows that the perinatal mortality has, as expected, declined considerably during the last forty years. During 1929-35, the perinatal mortality in Caesarean Section was 16%, this figure has now dropped to 4% during 1970-77. Improved pediatric care of the premature infant and avoidance of Caesarean Section for known dead infants or those with serious congenital anomalies largely explain this striking improvement which has continued till today.

Table IV shows that the perinatal deaths in Caesarean Section for foeto-pelvic disproportion fell from 11% in 1929-35 to 1.7% in 1971-77. The perinatal deaths in Caesarean Sections for antepartum haemorrhage after improving from 11.4% to 7.1% in 1964-70, was 13.4% for the period 1971-77. Cord prolapse accounted for 20% of the perinatal deaths at Caesarean Section during 1971-77. Perinatal loss in Caesarean Section undertaken for evidence of foetal distress continues to be high but has shown improvement.

TABLE IV  
*Perinatal Deaths in Caesarean Sections According to the Indications*

| Indications                | 1929-35 | 1936-42 | 1943-49 | 1950-56 | 1957-63 | 1964-70 | 1971-77 |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|
| Foeto-pelvic disproportion | 11.00%  | 4.4%    | 1.6%    | 2.2%    | 3.1%    | 2.4%    | 1.7%    |
| Antepartum haemorrhage     | —       | —       | 2.7%    | 11.4%   | 10.0%   | 7.1%    | 13.4%   |
| Previous Caesarean Section | —       | —       | —       | 3.9%    | 2.5%    | 1.4%    | 2.9%    |
| Abnormal presentation      | —       | —       | —       | 12.5%   | 24.0%   | 3.7%    | 1.1%    |
| Abnormal uterine action    | —       | —       | —       | 5.5%    | —       | —       | —       |
| Foetal distress            | —       | —       | 10.3%   | 11.1%   | 13.2%   | 7.1%    | 3.0%    |
| Cord prolapse              | —       | —       | —       | 18.7%   | 15.2%   | 7.8%    | 20.0%   |
| Osteomalacia               | 20.0%   | 25.0%   | 7.5%    | —       | —       | —       | —       |

Recent improvements in medical induction, improvement in pediatric care of Caesarean delivered infants, avoidance of Caesarean delivery in pre-viable, dead and seriously malformed infants, greater use of x-ray for diagnosis of abnormal infants, employment of several parameters for assessing foetal maturity, amniotic fluid examinations and improved methods of anaesthesia are all measures which have lowered and are continuing to lower the perinatal mortality in Caesarean Section.

Hence in conclusion it is seen that with the upsurge in the frequency of use of Caesarean Section over the years, we have significantly reduced maternal mortality and have increased foetal salvage. With the changing trends in the indications for Caesarean Section, better antenatal care of our patients and by an increased awareness to restrict family size we have been able to successfully use Caesarean Section in the interest of both mother and baby and markedly reduce foetal mortality and morbidity.

THE PERINATAL SECTION  
 OF THE AMERICAN MEDICAL ASSOCIATION

Table III shows that the perinatal mortality has as expected declined considerably during the last forty years. During 1939-38 the perinatal mortality in Caesarean Section was 16%, this figure has now dropped to 4% during 1970-77. Improved pediatric care of the pre-term infant and avoidance of Caesarean Section for known dead infants to those with serious congenital anomalies largely explain this fall in perinatal mortality which has continued till today.

Table IV shows that the perinatal deaths in Caesarean Section for obstetric dysplasia fell from 11% in 1939-38 to 1.4% in 1970-77. The perinatal deaths in Caesarean Section for antepartum haemorrhage fell from 11.4% in 1944-70, was 13.4% for the period 1970-77. Card and placenta accounted for 20% of the perinatal deaths in Caesarean Section during 1970-77. Perinatal loss in Caesarean Section is much lower for evidence of foetal distress compared to the high perinatal mortality in the non-Caesarean group.

TABLE IV  
Perinatal Deaths in Caesarean Section according to the following classification

| Classification         | 1939-38 | 1944-70 | 1970-77 |
|------------------------|---------|---------|---------|
| Total perinatal deaths | 11.4%   | 13.4%   | 4.0%    |
| Obstetric dysplasia    | 11.0%   | 1.4%    | 1.4%    |
| Antepartum haemorrhage | 11.4%   | 13.4%   | 13.4%   |
| Card and placenta      | 20.0%   | 20.0%   | 20.0%   |
| Other                  | 1.4%    | 1.4%    | 1.4%    |

## STUDY OF PERINATAL MORTALITY IN BREECH PRESENTATION IN PRIMIGRAVIDA

By

Anil Ambedkar,\* M.B.,B.S.

M. Mataliya\*\*, M.D.

and

D. N. Patel,\*\*\* M.D., F.C.P.S., F.I.C.S.

Perinatal Mortality rate is a very sensitive index of the obstetric and Paediatric care of a Maternity Hospital. A study of the Perinatal mortality helps to improve the management of high risk Pregnancies. Hence with a view to improve the management, a study of perinatal mortality in Breech presentation in primigravidae was carried out at the Nowrosjee Wadia Maternity Hospital during the year 1979.

In this study perinatal death was considered as one when the foetus weighed more than 500 gms. and the period of gestation was more than 28 weeks upto 168 hours or 7 days of neonatal life after Birth.

TABLE 1

|  |                     |
|--|---------------------|
| Total No. of Deliveries in 1979              | 8606                |
| Total Perinatal loss                         | 385                 |
| General Perinatal Mortality Rate             | 44.7/1000 Births    |
| Breech in Primigravida in 1979               | 106 incidence 1.23% |
| Perinatal loss                               | 38                  |
| Perinatal Mortality Rate in Breech in Primi  | 358.5/1000          |
| Breech in Multigravida in 1979               | 120 incidence 1.39% |
| Perinatal loss                               | 22                  |
| Perinatal Mortality rate in Multipara Breech | 183.33/1000         |

In our study the Perinatal Mortality rate of Breech presentation in a primigravida was almost eight times higher than the General Perinatal Mortality rate and was almost double the Perinatal Mortality rate of Breech Presentation in a Multigravida.

Hence Breech Presentation definitely carries a high risk to the baby and the risk is higher in Primigravida than Multigravida.

It was observed that the Perinatal Mortality in Breech Presentation was influenced by the following factors:

- (1) Parity.
- (2) Antenatal Care.

\* House Surgeon.

\*\* Asst. Honorary Obstetrician and Gynaecologist.

\*\*\* Dean and Visiting Honorary Obstetrician and Gynaecologist, Nowrosjee Wadia Maternity Hospital.

- (3) Form of Pelvis.
- (4) Birth weight and Size of the baby.
- (5) Variety of Breech Presentation.
- (6) Presence of Cord Prolapse.
- (7) Presence of Associated Maternal diseases.
- (8) Presence of Associated Foetal Abnormalities.
- (9) Experience and skill of the operator.
- (10) Technique of Delivery used.

We found that the risk of Perinatal loss was almost double in primigravidae as compared to the Multigravidae, with Breech Presentation.

The Perinatal Mortality in Breech Presentation was greatly influenced by presence or absence of Antenatal care.

Our study showed that the Perinatal Mortality in unregistered Breech cases was as high as 77.77%, whereas it was only 27.27% in the registered cases. Antenatal detection of Breech presentation helps to plan the management in each case and this contributes greatly to the reduction of Perinatal Mortality.

Pelvic form is one of the most important factor which decides perinatal mortality in Breech presentation. The primigravida whose pelvis has not been tested for adequacy by previous vaginal deliveries, is at a greater risk. The danger to the baby is enormously increased if primiparity is associated with appreciable degree of pelvic Malformation. Vaginal delivery is even more difficult and dangerous if the child is much above the normal size. Potter at all States that "the Major feature of Perinatal deaths due to difficult Breech delivery, is not one of hasty injudicious delivery but of failure to appreciate the importance of Moderate degrees of disproportion in patients with Breech Presentation."

In our study out of 106 cases of Breech presentation in primigravidas there were 8 cases of foetopelvic disproportion. In 4 of these cases this foetopelvic disproportion was diagnosed early and the babies were delivered by timely caesarean section. There was no Perinatal Mortality in this group. In the remaining 4 cases there was arrest of the after coming head and in this group only one baby could be saved by delivering the after coming head with Forceps. Hence foetopelvic disproportion should not be missed in Breech presentation as in the presence of foetopelvic disproportion Vaginal Breech delivery can be quite hazardous.

The strength of uterine action and the course of labour except for early rupture of membranes which occurs in 20-30% of cases do not appear to be much affected in breech deliveries. But rigidity and slow

dilatation of the cervix in a primigravidae does give rise to more concern in a breech than in a vertex presentation and on occasions a caesarean section has to be employed to overcome this specific complication.

TABLE 2

| Birth Wt.<br>in kg. | No. of cases | No. of<br>Perinatal<br>deaths | % Perinatal<br>Mortality |
|---------------------|--------------|-------------------------------|--------------------------|
| Less than 1 kg.     | 8            | 8                             | 100%                     |
| 1. -1.499           | 22           | 18                            | 81.83%                   |
| 1.5-1.999           | 13           | 3                             | 23.05%                   |
| 2- 2.499            | 35           | 5                             | 14.28%                   |
| 2.5-2.999           | 21           | 3                             | 14.28%                   |
| 3- 3.499            | 4            | 1                             | 25%                      |
| 3.5-4               | 3            | —                             | —                        |

#### Relationship of Birth weight and Perinatal Mortality in Breech in Primigravida.

Our study revealed that Birth weight of the Baby was another important factor influencing Perinatal Mortality. Prematurity was the Major cause of perinatal deaths in Breech presentation.

The Table shows that below the birth weight of 1 kg. the % perinatal Mortality can be as high as 100%. This percentage perinatal Mortality goes on decreasing as Birth weight increases until it reaches a minimum at 2.5 kg. As birth weight goes above 2.5 kg. the % perinatal Mortality again starts rising.

Hence the ideal Birth weight for Vaginal Breech delivery is around 2.5 kg.

The type of Breech presentation is also another influencing factor. In our study the Perinatal Mortality was high in complete (41.27%) and Footling (41.18%) Breech presentation and it was comparatively less (20%) in Frank Breech presentation.

Another risk of Breech presentation is a high incidence of cord prolapse. In our study the incidence of cord prolapse in Breech presentation in Primi was 5.66% which is much higher than the incidence of cord prolapse in Cephalic presentation which is less than 0.1%. Out of 6 cases of Cord prolapse 5 had perinatal Mortality (83.34%) and only one Baby could be saved by Emergency Caesarean section.

It was observed that the type of Breech delivery also influenced the Perinatal Mortality. In our study Perinatal Mortality was minimum in caesarean section deliveries (16.66%) and low with assisted breech deliveries (35.1%). The Perinatal Mortality was as high as 66.66% in Spontaneous breech delivery and in breech extraction.

The experience and skill of the operator is another important factor. Cox, Hay, Cutts, Abbas and others have shown that if every breech

delivery is conducted by expert obstetrician the perinatal mortality can be considerably reduced and can be almost equal in primi and multigravidas.

Other factors like association of maternal diseases (like toxæmias) and foetal abnormalities incompatible with life do increase the perinatal mortality, but these factors act irrespective of the type of presentation.

Coming to preventable perinatal deaths we found that out of 38 perinatal deaths in Breech in Primi 10 were preventable.

The preventable factors operating were —

- Lack of antenatal care in 3 cases of toxæmia.
- Failure to do emergency caesarean section and failure of timely hospital admission in 3 cases of cord prolapse.
- Failure to do elective caesarean section in 3 cases of foetopelvic disproportion.
- And inadequate resuscitation in one case.

From this study it was realised that the following factors could possibly help us to reduce the perinatal mortality in breech presentation in primigravida.

(1) Ideally every case of breech presentation in primigravida should be detected Antenatally and its management must be planned by careful Antenatal and Intranatal evaluation.

(2) If there are no existing contraindications, External Cephalic version should be tried in every case of breech presentation, especially in a primi because head is the best pelvimeter. If ECV fails postural treatment can be tried.

(3) When breech presentation occurs in a primi the use of X-Ray pelvimetry and cephalometry is very helpful in diagnosing conditions like contracted pelvis, foetopelvic disproportion and it is also helpful in planning the type of delivery in each case. X-Ray also helps to confirm the type of breech presentation. Foetal maturity can be judged and foetal abnormalities like anencephaly and spina bifida can be detected with the help of X-Ray.

(4) As prematurity is the major cause of Perinatal Mortality in Breech Presentation, the use of corticosteroids in premature labour can help to reduce perinatal mortality from R.D.S.

(5) Timely hospital admission is very important in breech presentation because early diagnosis of conditions like cord presentation and cord prolapse can help to save the baby.

(6) When cord presentation or prolapse is diagnosed early, the



# A TEN YEARS STUDY OF NEONATES ADMITTED TO A SPECIAL CARE UNIT IN A PRIVATE HOSPITAL

By

Maharukh K. Joshi,\*

R. M. Koska,\*\*

R. J. Tiwari,\*\*

S. J. Engineer,\*\*

and

Parminder Kharbanda\*\*

## Summary

A 10 year Neonatal mortality rate in a Special Care Nursery of a Private Hospital in Bombay is presented. Effect of birth weight, sex, mode of delivery and time lag before admission, on the outcome is evaluated. The mortality rate improved with increase in weight. Females had a better chance of survival in all the weight groups. Breech delivery was accompanied with a very high mortality. Delay in admission had no effect on survival. The importance of gastric aspirate study in detecting early infection is underlined. Presence of Pus cells and positive cultures fore-bode a grave prognosis. Mortality was very high following Central Nervous system complications and respiratory diseases. The importance of good nursing care is stressed.

## Introduction

Often born before their time, the low birth weight babies are ill equipped to face and survive their harsh environment. In the last 20 years, considerable progress has been made in understanding their problems, and both mortality and morbidity have been reduced significantly. However in our country, where the infant mortality is still very high, the plight of these handicapped babies is indeed very lamentable. Thirty to forty per cent of the total babies born in our country weigh less than 2500 gms. Ideally all babies with more than 10% risk to their lives should receive treatment in special nurseries equipped to care for them.<sup>1</sup> Due to the high cost of treatment in such nurseries (Rs. 55-Rs, 75/day) patients are often not able to avail themselves of these facilities in private hospitals, and there are but few government and municipal hospitals even in the city of Bombay; where these nurseries are run satisfactorily.

## Material and Methods

Below we present some of our experiences in running such a nursery in a private hospital in Bombay. Babies are admitted to this

\*Hon. Pediatrician and Head of the Department of Pediatrics.  
 \*\*House Physician.  
 The Department of Pediatrics, Masina Hospital, Bombay.

nurses  
 Thought  
 normal  
 Observ  
 Year  
 1970 29  
 (12)  
 1971 71  
 (29)  
 1972 74  
 (20)  
 1973 131  
 (36)  
 1974 129  
 (54)  
 1975 95  
 (35)  
 1976 79  
 (25)  
 1977 126  
 (27)  
 1978 166  
 (36)  
 1979 169  
 (41)  
 Figures  
 T  
 weigh  
 signif  
 where  
 in 19  
 morta  
 stead  
 (P <  
 more  
 nurse  
 neona  
 Wale

nursery from all over Bombay and outside within 24 hours of birth. Though majority of the babies were of low birth weight, some full-term normal weight babies, requiring intensive care were also referred.

### Observations

TABLE I-A Table-I-B  
Mortality in relation to Birth Weight

| Year | Total       | <1 kg             | 1-1.5 Kg.         | 1.5-2.0 Kg        | 2.0-2.5 Kg.      | More than 2.5 Kg. | 1.5-2.5 kg.      |
|------|-------------|-------------------|-------------------|-------------------|------------------|-------------------|------------------|
| 1970 | 29<br>(12)  | 5<br>41.38% (5)   | 12<br>(4)-33.33%  | 9<br>(2)-22%      | 2<br>(1)-50%     | 1<br>(0)-0%       | 11<br>(3)-25.4%  |
| 1971 | 71<br>(29)  | 10<br>40.8% (8)   | 38<br>(13) 34.2%  | 18<br>(7) 38.8%   | 3<br>(1)-33.33%  | 2<br>(0)-0%       | 21<br>(8)-38.09% |
| 1972 | 74<br>(20)  | 5<br>27% (3)      | 31<br>(9) 29%     | 27<br>(7) 25.9%   | 7<br>(0) 0%      | 4<br>(1) 25%      | 34<br>(7) 20.6%  |
| 1973 | 131<br>(36) | 11<br>27.48% (9)  | 66<br>(14) 35.8%  | 42<br>(11) 26.19% | 11<br>(1) 9%     | 1<br>(1) 100      | 53<br>(12) 22%   |
| 1974 | 129<br>(54) | 19<br>41.8% (18)  | 48<br>(21) 52%    | 51<br>(10) 19.6%  | 8<br>(3) 37.5%   | 3<br>(2) 66.6%    | 59<br>(13) 22%   |
| 1975 | 95<br>(35)  | 10<br>36.84% (8)  | 25<br>(12)-48%    | 39<br>(8)-20.5%   | 11<br>(3) 27.27% | 10<br>(4) 40%     | 50<br>(11) 22%   |
| 1976 | 79<br>(25)  | 12<br>31.6% (11)  | 18<br>(5) 27.7%   | 24<br>(7) 20.6%   | 13<br>(0) 0%     | 12<br>(2) 16.66%  | 37<br>(7) 18.9%  |
| 1977 | 126<br>(27) | 6<br>21.4% (4)    | 43<br>(14) 32.5%  | 47<br>(7) 14.89%  | 14<br>(0) 0%     | 16<br>(2) 11%     | 61<br>(7)-11.5%  |
| 1978 | 166<br>(36) | 16<br>21.86% (13) | 41<br>(10) 26.8%  | 68<br>(10) 15.76% | 25<br>(0) 0%     | 16<br>(3)-18.75%  | 93<br>(10) 10.8% |
| 1979 | 169<br>(41) | 25<br>24.26% (19) | 52<br>(14) 26.92% | 48<br>(5) 10.4%   | 29<br>(1) 3.44%  | 15<br>(2) 13.33%  | 77<br>(6) 7.8%   |

Figures in brackets ( ) denotes deaths.

Table I shows the mortality figures over 10 years in relation to birth weight. Whilst no constant trend is seen in the over all mortality rate, a significantly steady fall is noticed in the 1.5 kg-2.5 kg. birth weight group, where mortality has dropped from a maximum of 38% in 1971 to 7.8% in 1979 ( $P < .001$ ). Infants weighing less than 1 Kg. have a very high mortality (Mean 82.4% over 10 years), Table II. The death rate has steadily fallen with increase in weight from less than 1 kg to 2.5 kg. ( $P < .001$ ). An increase in mortality is noticed in infants weighing more than 2.5 kg. This is because these infants were admitted to the nursery only when they had some serious problem like asphyxia neonatorum.

Ronald Gordon<sup>2</sup> has analysed neonatal mortality in England and Wales from 1953 to 1975. He has observed that the mortality amongst

the low weight babies had fallen mainly because of the excessive fall in numbers in the 1000 gms or less group. In this group the death rate over 10 years period from 1966 to 1975 had dropped from 85.12% to 77.3% only. Their mean mortality of 80.95%, is not significantly lower than ours of 82.4%. Most of the Indian workers have reported 100% mortality in this group.<sup>3, 4, 5, 6</sup> Our mortality figures in all the weight groups except those weighing more than 2.5 kg, are comparable to those reported by Gordon and Singh *et al* and are better than those of Bhalla *et al*.<sup>8</sup>

TABLE II  
Mean Mortality in relation to birth weight and Sex

| Wt. (Kg)      | Males                | Females               | Total                  |
|---------------|----------------------|-----------------------|------------------------|
| <1            | 67<br>(59)<br>88%    | 52<br>(39)<br>75%     | 119<br>(98)<br>82.4%   |
| 1.0-1.5       | 183<br>(72)<br>39.3% | 191<br>(44)<br>23%    | 374<br>(116)<br>31%    |
| 1.5-2.0       | 205<br>(46)<br>22.4% | 168<br>(28)<br>16.7%  | 373<br>(74)<br>19.8%   |
| 2.0-2.5       | 64<br>(7)<br>10.9%   | 59<br>(3)<br>5.1%     | 123<br>(10)<br>8.1%    |
| More than 2.5 | 44<br>(8)<br>18.2%   | 36<br>(9)<br>25%      | 80<br>(17)<br>21.3%    |
| Total         | 563<br>(192)<br>34%  | 506<br>(123)<br>24.3% | 1069<br>(315)<br>29.5% |

Figures in brackets ( ) denotes deaths.

Table II shows the relation of sex to mortality. Females have a significantly better chance of survival in all the weight groups. Bhalla *et al*<sup>6</sup> have reported a higher death rate amongst females whereas Srivastava<sup>7</sup> has found a more or less equal perinatal mortality rate in both the sexes.

TABLE III  
Effect of mode of delivery on Mortality

|                 | Caesarean Section | Breech |
|-----------------|-------------------|--------|
| No. of patients | 119               | 53     |
| Deaths          | 33                | 24     |
| % Mortality     | 27.73             | 45.28  |

Table III shows that the babies born by breech delivery had a very high mortality (45.28%). The risk of breech delivery is now a well accepted fact in Obstetrics.<sup>8</sup>

TABLE IV

Effect of Time lag before admissions on mortality Year 1979

|                  | <6 hrs. | 6-12 hrs. | 12-24 hrs. |
|------------------|---------|-----------|------------|
| No. of admission | 128     | 23        | 17         |
| No. of deaths    | 33      | 6         | 2          |
| % Mortality      | 25.75   | 26.0      | 11.76      |

We admit babies to the nursery within 24 hours of birth only, as the risk of colonisation by bacteria increases with longer stay in relatively unsterile environment. From Table IV it can be seen that the delay in admission has not increased the mortality rate. In fact the mortality was lower in the few babies admitted after 12 hours of birth. The delay itself may be indicative of the better condition of these babies and hence the hesitation on the part of the obstetrician in sending them to a special care nursery.

TABLE V

Gastric Aspirate Examination—Year 1979

|                     | V-A               |                  | V-B             |   |
|---------------------|-------------------|------------------|-----------------|---|
|                     | Pus cells present | Culture positive | Organisms grown |   |
| Normal              | 13                | —                | E. Coli         | 6 |
| Developed infection | 14                | 6                | Staphylococcus  | 3 |
| Expired             | 12                | 5                | Pseudomonas     | 1 |
|                     |                   |                  | Candida         | 1 |
| Total               | 39                | 11               |                 |   |

Total 148 aspirates sent for examination.

It is our practice to send the gastric aspirate for smear and culture examination immediately on admission, provided the babies have not received any feed before admission. Out of 148 such samples sent for analysis in 1979, 39 showed pus cells and cultures were positive in 11 babies (Table V). Of these 39 babies, only 13 remained normal, whereas the rest developed infection, 12 of whom expired. All the 11 babies with positive cultures showed evidence of infection in the first week, and 5 of them expired. Gastro enteritis was the commonest infection noticed (11 cases). The remaining 3 cases showed cord infection, respiratory infection and only lethargy. This shows that both morbidity and mortality was high amongst babies showing evidence of infection in the gastric aspirate. Bihari Lall *et al*<sup>9</sup> have highlighted the importance of examining gastric aspirate within 1 hour of birth for detection of early infection. We have taken the aspirate irrespective of the time factor, provided feed was not given.

TABLE VI

Complication and cause of death—Year 1979

|                                    | No. of cases | No. of deaths |
|------------------------------------|--------------|---------------|
| I-Respiratory Diseases             | 28           | 17 @          |
| (1) Asphyxia Neonatorum            | 4            | 4             |
| (2) Pneumonia                      | 4            | 2             |
| (3) Collapse lung                  | 2            | 2             |
| (4) Respiratory distress           | 18           | 9             |
| II-C.N.S. Complications            | 16           | 11 @          |
| III-Gastroenteritis                | 31           | 5             |
| IV-Jaundice                        | 15           | —             |
| (Bilirubin levels more than 14 mg) |              |               |
| Required Exchange transfusion-3    |              |               |
| V-Prematurity                      |              | 9             |
| VI-C.V.S.disease                   | 4            | 1             |
| VII-Miscellaneous                  |              |               |
| (1) Int. Obst.                     | 4            | 1             |
| (operated)                         |              |               |
| (2) Cellulitis                     | 1            | —             |
| (3) Hydrocephalus                  | 1            | —             |
| (4) Gen. oedema                    | 1            | —             |
| (5) Cord infection                 | 1            | —             |
| (6) DIC and Septicemia             | 1            | 1             |

@ 4 patients had Respiratory distress with terminal CNS complications.

The major complications and causes of death in the year 1979, are listed in Table VI. The diagnosis was purely clinical, as no post mortem facilities were available in our hospital. The term Respiratory Distress was used where no gross pathology like collapse, consolidation was seen on x-ray. We have avoided using the term hyaline membrane disease, as histopathological documentation was lacking. A diagnosis of intracranial complication was made when babies became unconscious with dilated slowly reacting or fixed pupils. It was the terminal event in 4 cases of respiratory distress. Though gastro enteritis was the commonest complication, respiratory disease and central nervous system complication accounted for the maximum deaths. Prematurity per se was given as the cause of death, when the infant was very immature, and experienced repeated cyanotic spells, with normal activity in between the attacks. Jaundice with serum bilirubin levels exceeding 14 mg% was seen in 15 babies. Only 3 required exchange transfusions and remaining were treated with photo therapy.

We cannot overemphasize the importance of good nursing care. The risk of complications increased, when the number of babies in the nursery increased. Quality of nursing is all important, and frequent changes in the nursing staff should be discouraged. Since the equipment available to us has not changed remarkably in the last 10 years, the significant drop in mortality in the group of 1.5-2.5 kg. can be attributed

mainly  
physici

Ackno

Ou  
Bomba  
Mrs. K  
for the  
all the  
and nig

1.

2.

3.

3.

5.

6.

7.

8.

9.

mainly to the improved nursing care and the experience of the attending physician.

### Acknowledgement

Our acknowledgement is due to the Trustees, Masina Hospital, Bombay, for their kind permission to publish the hospital data, to Mrs. K. Lotlikar for the statistical evaluation of the data, to my colleagues for their co-operation in running the unit, and last but not the least to all the Resident Doctors and the Nursing staff who have laboured day and night for the love of babies only.

### REFERENCES

1. Singh, M.: The high-risk Perinate, *Indian Pediatr.* **12**: 949, 1977.
2. Gordon, R. R.: Neonatal and Perinatal mortality rates by birth weights, *B.M.J.*: **ii**: 1202, 1977.
3. Singh, M., Sud, N., Arya, L. S. and Hingorani, V.: Impact of special care services on Perinatal and Neonatal outcome, *Indian Pediatrics*, **17**: 255, 1980.
3. Bhargava, S. K., Bhargava, V., Sudershan, Kum. Madhavan, J., Ghosh, S.: Birth Weight, gestational age, and maternal factors in low birth weight babies, *Indian Pediatrics*, **10**: 161, 1973.
5. Ghosh, S., Bhargava, S. K., Sharma, D. B., Bhargava, V., Saxena, H. M. K. Perinatal Mortality—A Preliminary report on a hospital based study, *Indian Pediatrics*, **8**: 421, 1971.
6. Bhalla, J. N., Bhalla, M., Srivastava, J. R.: A study of low birth weight babies in a special care unit, *Indian Pediatrics*, **12**: 665, 1975.
7. Srivastava, J. R., Saluja, K. K., Baxi, K. S., Samuel, K. C.: Studies on perinatal mortality in medical college hospitals, Kanpur, *Indian Pediatrics*, **6**: 374, 1969.
8. Douglas, G. and Stromme, W.: Breech transverse and copound Presentation in Operative Obstetrics, Ch. 14, 3rd Edn. Appelton Century-Crofts, New York, 1976.
9. Lall, U. B., Bhargava, S., Sareiya, K. A. Sudershan, Kum. Ghosh, S.: Study of gastric smear examination as an index for detection of early neonatal infection, *Indian Pediatrics*, **12**: 673, 1977.

A TEN YEARS STUDY OF NEURALGIA  
... to the improved nursing care and the experience of the attending  
...  
**TORSION OF THECA LUTEIN OVARIAN CYST IN A  
CASE OF VESICULAR MOLE**

By

U. S. Bhagwat,\* M.D., D.G.O.  
M. Y. Raval,\*\* M.D., F.I.C.S., D.G.O.  
S. K. Shah,\*\*\* M.D., F.C.P.S., F.I.C.S.  
S. S. Iyer,\*\*\*\* M.D., D.G.O., M.A.M.S.

The presence of theca lutein cysts associated with vesicular mole has been reported in literature frequently. Coppleson states, it occurs in 28% of cases.

Review of the literature shows that 50% of vesicular mole cases have theca lutein cysts and 27% of these tend to be bilateral. They have a tendency to regress spontaneously. Torsion and haemorrhage in a large lutein cyst is a rare complication and we are presenting one such rare case.

**Case Report:**

18 years old Mrs. D.S. was admitted on 30-12-1978 with excessive bleeding per vagina. She was having continuous per vaginal bleeding for the last 3 months. She also complained of pain and a palpable lump in lower abdomen.

Her past menstrual cycles were regular and painless. The flow used to be moderate.

*Past History:* Patient gave history of irregular excessive bleeding per vaginum for which dilatation and curettage was carried out three times out of station. Unfortunately histopathology reports were not available. The discharge card from the institution where dilatation and curettage was done, stated that vesicular mole was evacuated.

*Obstetric History:* She was married for 5 years and was primigravida.

*On Examination:* Patient was fairly built and nourished. There was no oedema on the legs. Skin and mucous membranes showed pallor.

*Systemic Examination:* Heart sounds were normal. There were no

\*Reader, Dept. of Obst. & Gyn. B.Y.L. Nair Ch. Hospital & T. N. Medical College.

\*\*Professor, Dept. of Obst. & Gyn. B.Y.L. Nair Ch. Hospital & T. N. Medical College.

\*\*\*Hon. Assoc. Prof. Dept. of Obst. & Gyn. B.Y.L. Nair Ch. Hospital & T. N. Medical College.

\*\*\*\*Lecturer, Dept. of Obst. & Gyn. B.Y.L. Nair Ch. Hospital & T. N. Medical College.

murmu  
findings  
mality.

A  
cal reg  
from th

Pe  
which  
growth

On

Ute

A  
The up  
mass w  
showed

Fol  
follows:

Hb  
count,  
was—15  
was neg  
X-ray o

Ult

The  
mass se  
right ov

Imr  
result in

On  
general  
for histo  
mole.

Pos

On  
in 32 di

On

The  
was una

murmurs. Lungs showed good air entry and no abnormal auscultatory findings. Central nervous system examination did not reveal any abnormality.

A lump was palpable in the lower abdomen more in left paraumbilical region, which was mobile and tense. On palpation, lump was arising from the pelvis. The size was 6" × 6" × 6".

*Per speculum examination* showed cervix with bleeding from the os which was moderate in amount. There was no evidence of cherry red growth in paraurethral region or in the posterior fornix.

*On Per Vaginal Examination* Cervix was downwards and forwards.

Uterus was anteverted, soft and bulky, about 8 weeks in size.

A large cystic mass was felt in left fornix which was well defined. The upper border of that mass was in the paraumbilical region. This mass was mobile and was felt separately from the uterus. Right fornix showed an enlarged ovary about 2" × 2" × 2" in size.

Following investigations were undertaken and their reports were as follows:

Hb. was 9 gms%. Total WBC count was 8,600/c.mm. Differential count, PMN—60%, Lymphocytes—33% and Eosinophils—7%. E.S.R. was—15 m.m. at the end of 1 hour, Blood group was B Rh + ve, VDRL was negative, BUN was 11 mgms.% Fasting Blood Sugar was 90 mgm.%, X-ray chest and skull were normal.

Ultrasonography findings were as follows:

The uterus showed some molar tissue. A large cystic intra abdominal mass separate from the uterus was visualized on transverse section. The right ovary showed moderate enlargement.

Immunological pregnancy test report on 1-1-1979 showed positive result in 1 in 200 dilution.

On 5-1-1979—A repeat thorough evacuation of the uterus under general anaesthesia, was done. The abundant material received was sent for histopathological examination and was reported as benign vesicular mole.

Post didatation and curettage pregnancy tests were as follows:

On 11-1-1979, i.e. 5 days post D & C, pregnancy test was positive 1 in 32 dilution.

On 17th January, the pregnancy test in undiluted urine was negative.

The patient was discharged, but due to unavoidable circumstances was unable to leave hospital.

On 25th February she developed signs and symptoms of acute abdomen.

*On Examination:* There was guarding, rigidity in lower abdomen. The abdominal size had increased. Diagnosis of torsion of the ovarian cyst was made and exploratory laparotomy was undertaken. The operative findings were as follows:

- (1) Left sided ovarian cyst 8" × 6" in size which had undergone torsion through 180°. The cyst was haemorrhagic and tense.
- (2) Uterine size appeared bulky.
- (3) Multiple cystic enlargement of right ovary was visualized.

Left sided ovariectomy was undertaken. To preserve ovarian function, right ovarian multiple cysts were punctured and straw coloured fluid was aspirated. Hemostasis was carefully achieved and abdomen closed. Her post operative period was uneventful and incision healed well.

Patient continued to bleed for the next three weeks. In the light of the history and findings at laparotomy; she was considered as a high risk case for future choriocarcinoma and was given a full course of methotrexate i.e. five mgms. five times a day orally for five days. During the therapy she was monitored by repeatedly doing haemoglobin, while blood cell count, platelets count and bleeding and clotting time.

The patient is being followed up in the out patient department and is advised pregnancy. Pregnancy test done so far have shown negative results.

#### Summary

A case of vesicular mole with a large theca lutein cyst of left ovary which underwent torsion and haemorrhage has been presented.

#### Acknowledgement

We are thankful to the Dean, T.N. Medical College and B. Y. L. Nair Charitable Hospital, Dr. M. S. Kekre and Head of the Department of Gynaec. & Obstet. for their kind permission to make use of hospital records.

#### REFERENCES

1. A. Sison, Am. J. Obst. and Gyn. Vol. 88, P.634, 1964.
2. Coppleson, A. J. Obst. and Gyn. Vol. 4, 1378, 1958.
3. Lancet Vol. 1, 1344, 1966.

## ROBERTS SYNDROME

By

Z. M. Patel,\* M.D., D.C.H.  
D. S. Krishnamurthy,\*\* M.Sc.  
L. M. Ambani,\* M.D.

This 3 day old male infant was born after 38 weeks of gestation to a 32 year old mother and 35 year old father, belonging to the Muslim community, who were first cousins once removed. There was no history of fever, irradiation exposure, rash or drug administration during the antenatal period. The pregnancy was uneventful and it was a full term lower segment creasarean section delivery. Weight at birth was 2 kg. Physical examination revealed the following abnormalities in a large head with circumference of 37 cm (75% tile) frontal prominence, small eyes, small low set ears, bilateral cleft lip with protruding maxilla. The right arm was absent, the left arm appeared as a rudimentary limb bud with two flaps. Lower limbs showed small thighs and legs with cutaneous dimpling. The feet were everted with cutaneous syndactyly between 3rd, 4th and 5th toes. External genitalia showed a well formed penis and scrotum with large testes (4 ml) (Fig. 1). The examination of other systems was unremarkable.

The Giemsa banded karyotype revealed a 46, XY complement. On X-ray examination there was bilateral absence of radius and ulna. Three metacarpals and a humerus were present on left side. Vertebral bodies were bifid. The femur was present bilaterally. However, there was only one bone in the foreleg on the left side. The metatarsals and phalanges were present (Fig. 2). The child expired at the age of one month due to an acute illness. The parents refused autopsy.

### Discussion

In 1919 Roberts described a brother and sister with marked shortening of all limbs, cleft lip and palate. Since its original description, only a few cases of this rare syndrome have been documented.<sup>2-7</sup> A similar but genetically different condition has been described under the name of pseudothalidomide or SC syndrome by other workers.<sup>8-10</sup> Roberts syndrome differs from the SC syndrome by lack of silvery hair, presence of ulnar rather than radial defect, lack of facial hemangioma and hypoplastic alae nasi. It is as yet not resolved whether the Roberts and the SC syndromes are two different entities or variable manifestation of a single gene defect.<sup>5</sup> This view tends to be supported by the report of a family with children having features of both Roberts and SC syndromes.<sup>11</sup>

Our patient had the features of Roberts syndrome i.e. cleft lip,

\*Unit of Medical Genetics Institute for Research in Reproduction.

\*\*Department of Zoology (Cell Biology) University School of Sciences, Gujarat University.



Fig. 1. Clinical Photograph of patient.

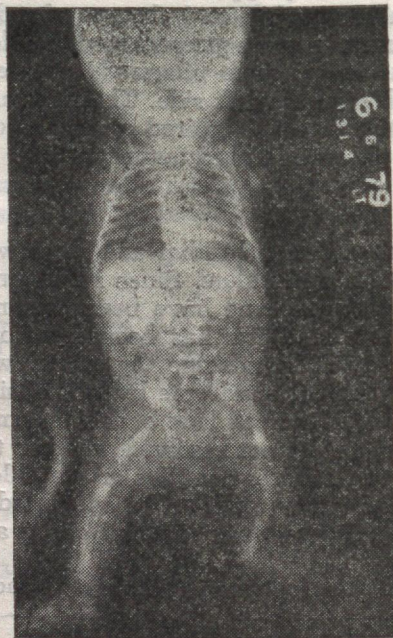


Fig. 2. X-ray showing bilateral absence of radius and ulna, absent femur on left side and bifid vertebral bodies.

tetraphocomelia and genital hypertrophy. There was no silvery blonde hair or joint contracture characteristic of SC syndrome.

Several observations suggest that Roberts syndrome is a genetic disorder transmitted in an autosomal recessive manner.<sup>3, 5, 8</sup> With every pregnancy the couple has a 25% risk of having an affected child. At present no prenatal diagnosis for this condition is available but the use of ultrasound could allow identification of limb defects. Fetoscopy, a technique that allows direct examination of the fetus can be a useful tool in the prenatal diagnosis of this condition. However this technique is still highly experimental and carries a risk of 5-10% to the mother even in expert hands.

In a recent report,<sup>7</sup> the mother of a child with Roberts syndrome was reported to have had consumed clonidine for her hypertension throughout pregnancy. Although this could be a chance association, since all the malformations associated with Roberts syndrome could also result from a disturbance in development before seventh week<sup>12</sup> this teratogenic possibility must be considered. Further documentation of cases may aid in establishing whether a teratogenic form of the syndrome does indeed exist. It is imperative that an accurate diagnosis be made for the purpose of genetic counselling.

### Summary

A 3 day old newborn, born of a consanguinous marriage, having a rare malformation is described. He had features of Robert's Syndrome consisting of tetraphocomelia, bilateral cleft lip and genital hypertrophy.

### Acknowledgements

We wish to thank Dr. Hilla Banaji for referring the case to us and Miss Shobha Newalkar for typing the manuscript.

### REFERENCES

1. Roberts, J. G.: A child with double cleft of lip and palate, protrusion of the intermaxillary portion of the upper jaw and imperfect development of the bones of the foot extremities. *Annals of Surgery*, 70: 252-261, 1979.
2. Appelt, H., Gerken, H. and Lenz, W.: Tetrphokomelie mit Lippen-Kiefer-Gaumens-palte and clitorishypertrophie ein Syndrom *Padiat. Padol.* 2: 119-124, 1966.
3. Freeman, M. V. R., Williams, O. W., Schimke, R. N., Temtamy, S. A., Vachier, E., German, J.: The Robert Syndrome. *Clin. Genet.* 5: 1-16, 1974.
4. Grosse, F. R., Pandel, C., Wiedemann, H. R.: The tetra-phocomelia cleft palate syndrome. Description of a new case. *Humangenetic* 28: 353-356, 1975.
5. Walden Maier, C., Alden, Hoff, P.: and Klemm, T. Roberts Syndrome. *Hum Genet.* 40: 345-349, 1978.
6. Zergollern, L. and Hitree, V.: Three siblings with Robert's syndrome. *Clin Genet* 9: 433-436, 1976.
7. Stoll, C., Levy, J. M., Beshara, D.: Robert's syndorme and clonidine. *J. Med Genet* 16: 6, 486-487, 1979.

8. Herrman, J., Feingold, M., Teff, G. A., Opitz, J. M.: A familial dysmorphogenetic syndrome of limb deformities, Characteristic facial appearance and associated anomalies. The "pseudothalidomide" or "SC-syndrome" Birth, Defects: Original Article Series 5: 81-89, 1969.
9. Hall, B. D.: Hypohelia-hypotrichosis facial hemangioma syndrome. Am J. Dis. Child, 123: 602, 1972.
10. Hermann, J. and Opitz, J. M.: The SC phocomelia and the Roberts syndrome—nosologic aspects. European Journal of Pediatrics 125: 117-134, 1977.
11. Kucheria, K., Bhargava, S. K., Bamezai, R. and Bhutani, P.: A familial tetrachomelia Syndrome involving limb deformities, cleft lip, cleft palate and associated anomalies—A new syndrome. Hum Genet. 33: 323-326, 1976.
12. Smith, D. W.: Recognizable Patterns of Human malformations, 2nd ed. Saunders, Philadelphia, 1976.

THE UNIVERSITY OF MICHIGAN LIBRARY  
 DIVISION OF LIBRARY SERVICES

A 3 day old newborn, born of a consanguineous marriage, having a rare malformation is described. He had features of Roberts Syndrome consisting of tetrachomelia, bilateral cleft lip and genital hypoplasia.

We wish to thank Dr. T. H. Bausil for referring the case to us and Mrs. Shoba Newkirk for typing the manuscript.

REFERENCES

Robertson, J. G.: A child with double club of his and palate protrusion of the intermaxillary region of the upper jaw and imperfect development of the bones of the foot. *Annals of Surgery*, 70: 328-331, 1910.

Agree, H., Gohari, H. and Levy, W.: Tetrachomelia mit Lippen-Kiefer-Gaumenspalte und Extremitätenanomalie. *Archiv. Pathol. B.* 110-121, 1966.

Herrman, J. G., Feingold, M., Teff, G. A., Opitz, J. M., Feinberg, S. A., Yachier, E., Gerson, I.: The Roberts Syndrome. *Clin. Genet.* 5: 1-18, 1974.

Gross, F. R., Pridel, G., Winkler, H. E.: The tetrachomelia cleft lip syndrome. A description of a new case. *Teratogenesis* 23: 382-383, 1972.

Wagner, H., Hoyer, H., Hoyer, H., Hoyer, T.: Roberts Syndrome. *Hum. Genet.* 40: 247-250, 1978.

Santhoshan, I. and Hoyer, H.: Three siblings with Roberts syndrome. *Clin. Genet.* 9: 433-438, 1978.

Opitz, J. M., Hermann, J., Roberts, D.: Roberts syndrome and thalidomide. *Hum. Genet.* 10: 242-247, 1973.

Copyright Clearance Center  
 222 Rosewood Drive  
 Danvers, MA 01923

American College of Obstetrics and Gynecology  
 535 North Dearborn Street  
 Chicago, IL 60610

**THE ASSOCIATION OF MEDICAL WOMEN IN INDIA  
TRIAL BALANCE AS ON 31ST DECEMBER 1978**

|       |  |                      |                      |
|-------|--|----------------------|----------------------|
| L.F.  |  |                      |                      |
| 1     | Balance National & Grindlays Bank Ltd.                 | 6,339.40             |                      |
| 2     | Capital Fund   |                      | 5,345.98             |
| 3     | Conference Fund  |                      | 1,202.49             |
| 4     | Golden Jubilee Fund                                    |                      | 26,183.66            |
| 5     | Diamond Jubilee Fund                                   |                      | 10,000.00            |
| 6     | Building Fund (Bombay Branch)                          |                      | 6,505.00             |
| 7     | Life Membership Fee                                    |                      | 8,889.00             |
| 8     | Outstanding expenses                                   |                      | 785.35               |
| 9     | Furniture A/c.   | 150.00               |                      |
| 10    | Office Partition                                       | 2,750.00             |                      |
| 11    | Capital Fund Investment                                | 3,708.12             |                      |
| 12    | Conference Fund Investment                             | 1,202.49             |                      |
| 13    | Golden Jubilee fund investment                         | 15,000.00            |                      |
| 14    | Diamond Jubilee Fund investment                        | 10,000.00            |                      |
| 15    | Fixed Deposit with Central Bank of India               | 1,500.00             |                      |
| 16    | Fixed Deposit with Central Bank of India               | 5,000.00             |                      |
| 21    | Interest M.I.D.R. 23/168 (10,000)                      |                      | 999.96               |
| 22    | " " 22/194 ( 4,000)                                    |                      | 399.96               |
| 23    | " " 22/112 ( 5,000)                                    |                      | 458.26               |
| 24    | Interest on Savings Bank Account No. 16585             |                      | 673.87               |
| 25    | Membership Fee & Subscription                          |                      | 8,514.00             |
| 26    | Advertisement  |                      | 657.00               |
| 27    | Application Fee paid                                   | 4,539.47             |                      |
| 28    | Application Fee received                               |                      | 5.00                 |
| 29    | Journal Subscription                                   |                      | 76.50                |
| 30    | Salary   | 400.00               |                      |
| 31    | Journal Printing Charges                               | 5,412.00             |                      |
| 32    | Rent   | 360.00               |                      |
| 33    | Postage Journal  | 657.21               |                      |
| 34    | General Expenses                                       | 110.16               |                      |
| 35    | Postage  | 92.60                |                      |
| 36    | Bank Charges   | 57.00                |                      |
| 37    | Audit Fee  | 150.00               |                      |
| 38    | Books & Magazine                                       | 228.17               |                      |
| CB 12 | Cash on Hand   | 45.73                |                      |
| " 12  | Bank Balance Central Bank of India S.B. A/c. No. 16585 | 15,280.02            |                      |
| 18    | Income & Expenditure A/c.                              |                      | 2,286.34             |
|       | <b>Total</b>   | <b>Rs. 72,932.37</b> | <b>Rs. 72,932.37</b> |

The above Trial Balance has been extracted from the Books of Account of the above Association in which all the transactions have been correctly received by us for the year ended 31st December 1978.

J. M. DeSa Souza  
D. N. Patel  
Members Governing Council.  
2-5-1980



J. M. De Sa Souza  
D. N. Patel

Total Rs. 60,975.76

For and on behalf of  
Ratan S. Mama & Co.

Total Rs. 60,975.76

**THE ASSOCIATION OF MEDICAL WOMEN IN INDIA**  
**INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST DECEMBER 1978**

| EXPENDITURE  |                  | INCOME  |                  |
|--|------------------|---|------------------|
| To Expenses on the object of the Trust                                 |                  | By Membership Subscription                        |                  |
| <b>EDUCATION (JOURNAL)</b>   |                  | Annual Contribution 8,514.00                      |                  |
| Printing   | 5,412.00         | „ Advertisement receipt                           | 657.00           |
| Salary   | 400.00           | „ Journal receipt                                 | 76.50            |
| Postage  | 657.21           |   |                  |
|  | <hr/>            |   |                  |
|  | 6,469.21         |   |                  |
| <b>GENERAL ADMINISTRATION</b>  |                  | <b>INTEREST:</b>                                  |                  |
| Audit Fee  | 150.00           | M.I.D.R. 23/268 Central Bank of India (10,000)    | 999.96           |
| Bank Charges   | 57.00            | M.I.D.R. 22/194 Central Bank of India (4,000)     | 399.96           |
| Postage  | 92.60            | M.I.D.R. 22/112 Central Bank of India (5,000)     | 458.26           |
| Rent   | 360.00           | Central Bank of India Savings Bank A/c. No. 16585 | 673.87           |
| General expenses   | 110.16           |   | <hr/>            |
| Books & Magazine   | 228.17           |   | 2,532.05         |
|  | <hr/>            |   |                  |
|  | 997.93           |   |                  |
| <b>AFFILIATION FEE</b>   |                  | „ <b>AFFILIATION FEE</b>                          | 5.00             |
| Paid to Medical Women's International Association (Stockholder SWEDEN) | 4,539.47         | „ <b>INCOME AND EXPENDITURE ACCOUNT:</b>          |                  |
|  | <hr/>            | Excess expenditure of over income                 | 222.06           |
|  |                  |   | <hr/>            |
| Total Rs.  | <u>12,006.61</u> | Total Rs.   | <u>12,006.61</u> |

J. M. DeSa Souza  
D. N. Patel

Members Governing Council.  
2-5-80.

For and on behalf of  
Ratan S. Mama & Co.,  
Chartered Accountants,  
N. B. Daruvala  
Partner (F. 6271)

*With best compliments from:*

## **J. M. PARIKH**

MANUFACTURERS OF

**"MICRO-AID" BRAND SCIENTIFIC AND LABORATORY  
GLASSWARES**

ALSO STOCKISTS FOR

**"REMI" BRAND CENTRIFUGE MACHINES, MIXERS, ETC.,**

**"WESWOX" BRAND MONOCULAR & BINOCULAR  
MICROSCOPES ETC.,**

**"SYSTRONICS" BRAND PHOTOELECTRIC CALORIMETER,  
FLAME PHOTOMETER,**

**"NEOLAB" BRAND INCUBATORS, OVENS, SEROLOGICAL  
WATERBATHS, ETC.**

**BRANCH OFFICE:**

11, M.G. Road,  
Red Cross House, 1st Floor,  
Behind Canara Bank,  
POONA-1.  
Tel. No. 25688/22600

**REGD. OFFICE:**

Durgadutt Nathmalwadi,  
Amersi Road,  
Malad,  
BOMBAY 400 064  
Tel. No. 691573

**WE CONDUCT VARIOUS INTERNATIONAL TOURS ON  
MEDICAL & SURGICAL EXHIBITIONS AND CONGRESSES**

**PLEASE CONTACT US FOR FURTHER DETAILS:—**

*Compliments from :*

## **Parekh International Travels**

Consultants on International & Domestic Travel Technick,  
Mangaldas Market, Bldg. No. 6,  
2nd Floor, Room No. 409,  
Kitchen Garden Lane,  
BOMBAY-2.

**TEL : 292444**

UNIVERSITY OF CALIFORNIA LIBRARY  
SCHOOL OF LIBRARY STUDIES