MITRAL STENOSIS : HAS BALLOON DILATATION REPLACED SURGERY?

Dear Editor,

Rheumatic heart disease still remains a major health problem in India and other developing countries [1]. Mitral stenosis (MS), one of its common manifestations largely affects children and young adults, the most cherished and productive segment of our society. MS is a progressive disease and is usually fatal unless mechanical intervention relieves the obstruction.

In 1925, Henry Suttar relieved MS when he inserted his finger through the atrial appendage-the first true commissurotomy! However, this report was treated with skepticism. Charles Bailey in 1948, followed later by Dwight Harken and Russel Brock rekindled interest in closed heart operations, performed successful valvotomies and thus paved the way for modern heart surgery [2]. The largely favourable results obtained with closed mitral valvotomy (CMV), made this a routine procedure and is still being performed in many parts of the world [3]. The advent of cardiopulmonary bypass permitted the surgical repair of a stenotic mitral valve under direct vision, resulting in a more effective and safer valvotomy than was possible with CMV.

In June 1982, Inoue, a cardiac surgeon from Japan, developed a double lumen coaxial balloon catheter and successfully dilated the stenosed mitral valve by means of a transseptal puncture and thus began the era of catheter based dilation of MS-percutaneous transvenous mitral commissurotomy (PTMC) [4].

In recent past, several large studies have demonstrated excellent haemodynamic and long term results of PTMC for MS patients with low rate of complications [5,6]. Given the experience and success of procedure, the cardiologists have now expanded the indications for PTMC ranging from restenosis after CMV, patients with atrial fibrillation, associated mild to moderate aortic regurgitation and MS patients with pregnancy in second trimester.

Though potential major complications of PTMC including cardiac perforation, systemic emboli and valvular apparatus damage sometimes can occur, these incidents have been reduced to minimum by the experience gained worldwide. Since RHD is quite prevalent in India, and PTMCs being performed here are enormous, a Non Coronary Cardiac Intervention Registry of India has been formulated in 1996 under the auspices of Cardiological Society of India with the aim of collecting National data from all centres performing various Non Coronary Cardiological Interventions. 29 cardiological centres in India performed over 15,000 PTMCs with low levels of complications till 1996 [6].

Since early studies began to report excellent immediate and long term results, it was logical to compare efficacy of PTMC with well established CMV and Open Mitral Commissurotomy (OMV). Reyes et al compared PTMC with OMV with a follow up of 3 years.

In view of better results with PTMC, lower costs and elimination of need for thoracotomy, PTMC was advised for all patients of MS with favourable Mitral Valve Anatomy [7]. Recently, a new miniaturized metallic commissurotome similar to Tubb's dilator used by surgeons for CMV, has been developed by Alain Criber et al, and metallic commissurotomy has been done in a few centres with good results [8]. It may prove an effective, reliable and less costly method for relieving mitral stenosis in future.

PTMC first performed by Inoue in 1982 was a rational progression from four decades of experience with blunt surgical dilation of CMV. Though few patients of MS with unfavourable anatomy will continue to require OMV/Valve replacement, yet excellent results, lower costs and elimination of drawbacks of thoracotomy and cardiopulmonary bypass indicate that PTMC is the treatment of choice for patients with tight and pliable rheumatic mitral stenosis. Thus, appropriate method of producing mechanical relief of mitral stenosis has come full circle from closed surgical commissurotomy to open mitral valvotomy to closed balloon valvotomy after 50 years of pioneering work done by Charles Bailey and his colleagues.

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CHANGING PATTERN OF SEXUALLY TRANSMITTED DISEASES IN THE ARMED FORCES

Dear Editor,

Sexually transmitted diseases (STDs) have remained a major health problem in India. In addition to its morbidity, STD cases in the Armed Forces cause considerable loss of man-hours due to hospitalization, transfer of cases to STD treatment centres and follow up of the cases varying from 3 months to 30 months. STDs are also a major factor in the transmission of the most dreaded disease of modern time i.e. HIV infection [1]. A study was done to review the current pattern of STDs in the Armed Forces, compare it with the earlier studies on the subject and find out their association with HIV infection.

The study was conducted at a large referral STD treatment centre.

All new cases of STDs admitted from Jan 1993 to Dec 1999 were studied. Besides recording a detailed history each case underwent a thorough general physical, systemic, dermatological and venereological examination. Relevant investigations were done for confirmation of diagnosis. Serological tests for Syphilis and ELISA for HIV antibodies were done in all cases. ELISA positive cases were subjected to Western Blot test for confirmation of HIV infection.

A total of 797 cases were diagnosed as STDs. All cases were males. The youngest case was 18 year old and the oldest 50 years. The year-wise incidence varied from 183 (23.17) in 1994 to 73 (9.17) in 1998 and showed a declining trend (Table-1). This decline

in overall incidence of STDs over the years has probably been due to greater awareness and concern of the people especially about acquiring HIV infection. However, despite decline in the overall incidence of STDs the incidence of HIV infection in STDs had increased from 4.9% in 1995 to 15% in 1999 (Table-1). Arora et al reported 0.1% incidence of HIV infection in STDs during 1985-90 [2], whereas Gupta et al reported the incidence to be 16.3% in 1990-96 [3]. The increasing incidence of HIV infection in STDs is probably due to increasing HIV positivity in commercial sex workers. The bulk of cases in the present study was formed by Chancroid in 134 (23.1%) followed by Condyloma Acuminata in 126 (15.8%), Syphilis in 103 (12.9%), Lymphogranuloma Venereum (LGV) in 80 (10%), Gonorrhoea in 58 (7.3%) and Herpes Genitalis in 51 (6.4%) respectively (Table-2). Comparing with the previous reports published from the Armed Forces [2-6] it was observed that the incidence of Syphilis, Gonorrhoea, Chancroid and LGV had declined whereas the incidence of Condyloma Acuminata, Herpes Genitalis, Nonspecific urethritis and Molluscum contagiosum had increased (Table-3).

TABLE 1

Year wise incidence of STDs and HIV infection cases

Year	No of STD cases (%)	No of HIV positive STD cases (%)
1993	171 (21.5)	18 (10.5)
1994	184 (23.1)	16 (8.7)
1995	102 (12.8)	5 (4.9)
1996	108 (13.6)	10 (9.3)
1997	79 (9.9)	10 (12.7)
1998	73 (9.1)	9 (12.3)
1999	80 (10.0)	12 (15.0)
Total	797 (100)	80 (10.0)

To conclude, there had been a decline in the overall incidence of STDs and in particular Syphilis, Gonorrhoea, Chancroid and LGV. However, despite the declining trend, the incidence of HIV infection in STD cases has shown an increasing trend. It is therefore imperative to control STDs and treat them at the earliest in order to reduce risk of transmission of HIV infection. More aggressive approach is required to impart health education to the Armed Forces personnel, general public and commercial sex workers regarding preventive measures, which will go a long way in reducing the incidence of

TABLE 2

Incidence of different types of STDs and their association with HIV infection

STD	No of cases (%)	No of HIV positive cases (%)
Syphilis	103 (12.9)	8 (7.8)
Gonorrhoea	58 (7.3)	2 (3.4)
Chancroid	134 (16.8)	7 (5.2)
LGV	80 (10.0)	7 (8.8)
Condyloma acuminata	126 (15.8)	18 (14.3)
Herpes genitalis	51 (6.4)	6 (11.8)
Other STDs	156 (19.6)	21 (13.5)
STD Inv.	89 (11.2)	11 (12.4)
Total	797 (100)	80 (10.0)

STDs and HIV infection.

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TABLE 3

Pattern of STDs in Armed Forces

STDs	No (%) as observed by different authors					
	Singh. MH Pune 1962	Kapur. Armed Forces Hospital 1971-77	Chattopadhyay et al. BH Delhi 1981-84	Arora et al. BH Delhi 1985-90	Gupta, Sayal, et al. MH Kirkee and CH Pune 1990-96	Present study BH Delhi 1993-99
Syphilis	27 (27)	6769 (21.8)	66 (14.8)	104 (12.8)	237 (23)	103 (12.9)
Gonorrhoea	5 (5)	4027 (13.2)	62 (13.9)	85 (10.5)	130 (12.6)	58 (7.3)
Chancroid	52 (52)	12074 (38.9)	162 (36.3)	345 (42.5)	334 (32.5)	134 (16.8)
LGV	8 (8)	3598 (11.4)	69 (15.5)	106 (13.1)	122 (11.9)	80 (10)
Granuloma inguinale	3 (3)	-	1 (0.2)	3 (0.4)	-	-
Codyloma acuminata	2 (2)	-	44 (9.9)	62 (7.6)	-	126 (15.8)
Herpes genitalis	-	-	15 (3.4)	37 (4.6)	34 (3.3)	51 (6.4)
Others	3 (3)	4994 (14.6)	27 (2.8)	38 (4.9)	170 (16.5)	245 (30.8)
Total	100 (100)	30962 (100)	441 (100)	811 (100)	1027 (100)	797 (100)