

CHANGING TRENDS OF TETANUS INFECTION FOLLOWING ABORTION AND DELIVERY

by

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Tetanus complicating puerperium or postabortal period is a life threatening condition, and is almost always the result of inadequate aseptic measures. Now, since abortion has been legalised it is expected that the number of criminal abortions will be diminished and hence the incidence of tetanus. The aim of this paper was to determine the changing trends of tetanus if any following abortion or delivery.

Material

From January 1969, to April 1975, there were 2752 cases of tetanus admitted to the K.E.M. Hospital, Bombay.

There were 38 cases of postabortal and postpartum tetanus. Detailed history, history of interference and any other relevant data were determined.

There were 17 cases of tetanus following abortion and 21 following delivery. Out of these, 32 were married and 6 were unmarried; 15 cases gave history of interference.

Criminal Interference

There were 8 deaths out of 15, who

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had some sort of interference for abortion or for delivery. Only 3 patients expired out of 23, where no interference could be suspected.

Age Incidence

Slightly high incidence of postabortal tetanus was in the age-group of 15-20 as in this age group large number of patients are unmarried. They go in for criminal abortions (4 unmarried girls belonged to this age group). Post-partum tetanus is common in the age group 21-25 years as maximum number of deliveries occur in this age group (Table I).

TABLE I
Age Incidence

Age Group	No. of patients of postabortal tetanus	No. of patients of postpartum tetanus
15 — 20	5	4
21 — 25	3	9
26 — 30	4	4
31 — 35	4	2
36 — 40	1	2
Total	17	21

Interference was either a stick or a metal probe used by quacks for induction of abortion. A wooden stick of 2.5" length was removed from the uterine cavity of a patient of tetanus following septic abortion. In another case explora-

tory laparotomy had to be done and multiple pockets of pus could be detected. In one case of postpartum tetanus, forceps application was done in one case and in another, a very badly infected episiotomy wound with foul smelling lochia was detected. There was one case who developed tetanus following abdominal sterilisation.

There were 508 female patients above the age of 15 years, thus postpartum and postabortal group comprised 7.48% of the above patients.

Incidence

Table II shows the over all incidence of postpartum and postabortal tetanus over

TABLE II
Incidence

Year	Author	Incidence of postpartum & postabortal tetanus
1954-63	Patel—Bombay	4.2%
1961-63	Vaishnav—Dehi	4.6%
1961-62	Joag—Sholapur	5%
1969-75	Present Series	1.38%
PRESENT SERIES		
1969-71		1.26%
1972-75		0.94%

the last 20 years. There is a definite decrease in incidence in the last 6 years. Because these cases were mostly from the

city or its near vicinity. There are a lot of cases which are unreported and die unattended in the far off rural areas.

Mortality

Out of the total of 2752 cases of tetanus, 1021 (37.1%) expired. Mortality of postpartum and postabortal tetanus in the present series was 29% (Table III). Usually postpartum and postabortal tetanus carry a very high mortality. This is probably because of large raw area in closed uterine cavity and the presence of necrosed tissue.

Discussion

Tetanus mortality does not seem to be affected much by even modern, highly energetic line of treatment because the management has not much changed over the past two decades. The decline in incidence of puerperal tetanus over the time is probably due to greater awareness of the problem, greater use of tetanus toxoid, and its easy availability.

Illegal interference following legalisation of abortion has decreased to some extent but not as much as expected. Fifteen of the cases in this series gave history of criminal interference, out of these 6 cases were in the last three years. Leglislation of abortion has encouraged quacks and untrained personnel to become bolder resulting in continuous flow of septic abortion cases, even now. Large number of patients do not disclose the true events.

TABLE III
Mortality

Year	Author	% Mortality in Obst. cases	Overall Mortality
1954-63	Patel (Bombay)	61.7%	45.8%
1961-63	Vaishnav (Delhi)	58.8%	39.8%
1961-62	Joag (Sholapur)	50%	35.9%
1969-74	Present series	29.0%	37.1%

Tetanus is a rarity in the West, rarely seen in cases following abortion, or delivery. However, it is common in addicts who indulge in self administration of drugs with inadequate asepsis.

Ramsay (1963) investigated 6000 cases of puerperal infection during last 31 years and reported only 1 case of puerperal tetanus.

Tetanus following interference definitely gives higher death rate as compared to tetanus following no interference. Most of the postpartum tetanus have developed following home deliveries which obviously emphasises the importance of asepsis during all stages of labour and during puerperium.

Mortality is also considered to be high by the majority of workers, when the incubation period is less than 7 days.

It is highly important therefore to educate both the medical, para-medical personnel and general population regarding asepsis. Women should be motivated to undergo abortion in recognised abortion centres having proper facilities. That abortion is legalised should be widely publicised as still a large number of the population in rural as well as urban areas is still unaware of the new law. All preg-

nant females should undergo routine active immunisation against tetanus and it is safer that delivery be conducted in the hospitals where proper aseptic measures are available.

Our main aim should be to completely eradicate the infection from urban as well as rural India as in the West where puerperal tetanus is a rarity.

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