

## SUMMARY

Tetanus neonatorum constitutes one of the major public health problems.

The aim of this work was to study the magnitude of tetanus neonatorum problem in Kalyoubia Governorate to find out the factors associated with morbidity and mortality of the disease. Benha fever hospital was selected as a site for the study. A detailed observational interview sheet comprising infants, maternal and case related data was designed to give information about different factors that influence morbidity and mortality of tetanus neonatorum. The study included 95 cases of tetanus neonatorum which were admitted to Benha fever hospital through one year starting from October 1988 to September 1989 as a prospective study.

Analysis of collected data revealed the following:

- The incidence rate of neonatal tetanus admissions was 6% and the case fatality rate of the disease was 53.7%.
- Tetanus neonatorum deaths comprised 5.4% of neonatal deaths
- Males were more affected (75.8%) than females (24.2%) with sex ratio 3:1.
- The majority of cases (86.3%) were rural infants, with case fatality rate 54.9%. They came from houses of bad sanitary condition, where animal shed was present inside houses (88%) and floor of house was earthen (81.1%).
- The incidence rate of neonatal tetanus admissions declined from 18.5% to 3.6% by the years 1985 and 1989 respectively.

- The highest percentages of admitted cases of tetanus neonatorum were 22.1%, 17.9% and 15.8% during November, December and October 1988. It was declined to reach zero percent during June 1989.
- The prognosis was good among cases of vaccinated mothers (63.3% cured). Also, when the period of administration of second dose of tetanus toxoid was more than 6 weeks before delivery (64.2% cured). Also the prognosis of cases of vaccinated mothers with two doses is better than those of one dose.
- The highest percentage of cases was 98.5% born to multiparous mothers where the case fatality rate was 54.7%.
- The majority of cases were born to farmers and manual workers (72.6%) and related to illiterate fathers (43.2%) and mothers (86.3%).
- Only 18.5% of the mothers of tetanus neonatorum cases received antenatal care services regularly. Also, 65.3% of the mothers of the studied cases were without antenatal care, and there was statistically significant difference between the cure rate of cases of mothers who received antenatal care (63.6%) and those of mothers without (37.1%).
- The high percentage of tetanus neonatorum cases was 94.8% infants delivered at home and 84.2% of cases attended by Dayas. Also, unboiling instruments were used in cutting the

umbilical cord of 66.3% and all the instruments were unsterilized.

- The cases with normal appearance of the umbilical stump had a cure rate of 71.4%, but those with umbilical stump sepsis had a cure rate of 19.6% only, this difference is statistically significant.
- The most common presenting symptoms and signs were suckling affection (93.7%) and lock Jaw (87.4%).
- The prognosis was worse when the duration of symptoms or signs was 2 days before admission (63.4% died).
- Ninety point two percent of tetanus neonatorum deaths Occurred within 48 hours after admission.