INTRODUCTION
INTRODUCTION

The "Tetanus" word has its origin from Greek word 'Teino' means "stretcher". Hippocrates the father of modern medicine, was first to recognise tetanus in 460 B.C. This is a challenging problem occurring in most of the countries throughout the world. It is a terrifying disease, causing despair in the hearts of sufferer and attendant, alike.

Tetanus prevails in every part of the world and takes a heavy toll of more than 400000 per year. (Data according to 3rd internation conf. of tetanus 1976). Its peak incidence is more in tropical and subtropical developing Countries. In India it is more common in Uttar Pradesh, Madhya Pradesh, Bihar, Bengal, Punjab.

It is a disease of nervous system caused by the exotoxin of tetanus bacilli, (Clostridium tetani) which are gram positive, terminal spore bearing rod shaped bacilli.

This was isolated by Nicolaier in 1884 and its relationship to tetanus was established by Katsasato in 1889.

Tetanus is easily diagnosed on the basis of its characteristic manifestations. There is progressive
development of muscular rigidity which is subjected to paroxysmal exacerbations without loss of consciousness. Painful spasm of jaw, neck, abdominal, spinal and chest muscles are responsible for the characteristic signs of lock jaw, neck rigidity, ophisthotonous and risus sardonicus.

In India, tetanus disease is widely prevalent. Humid climate, poor environmental sanitation and unhygienic obstetrical practice are the contributing factors for high incidence and mortality. More than 50,000 tetanus cases are reported annually, by state health authorities all over India. Among all patients of tetanus, neonatal tetanus and post partum tetanus have the highest mortality rates.

The main problem in a tetanus patient is respiratory failure as a result of laryngeal spasm, apnoea, rigidity of respiratory musculature, aspiration of secretions and pulmonary infection with collapse and consolidation of lungs, (Edmonson and Flowers 1979). Treatment of this disease is mainly based on muscle relaxants, sedatives along with antibiotics.

Equine anti tetanic serum has been used for the management of tetanus cases extensively, in an attempt to neutralize the tetanus toxin, but its use is now minimal, as it gives rise to allergic reactions and has short life and does not neutralize toxin efficiently. Moreover, as it is foreign protein, there is danger of damage to central nervous system.
Recent introduction of human immunoglobulin have opened a new chapter for the management of tetanus disease. Human tetanus immunoglobulin are given intramuscularly for the neutralization of free tetanus toxin in tetanus cases. As the disease indicates its greatest affect on the motorhorn cells of the spinal cord, its intrathecal use is also being advocated and has shown good results. Human anti-tetanic immunoglobulin are being produced in purified and concentrated form and do not contain any preservative which may give damage to the central nervous system. In this work attempt has been made to evaluate the results in terms of mortality by use of human antitetanic immunoglobulins by intramuscular and intrathecal use.

Bundelkhand region, in which this study was planned, comprises of six districts of Madhya Pradesh and five districts of Uttar Pradesh, with a total population of 78,9135 persons. This region is considered to be a most backward area. High illiteracy rate, poor hygienic conditions, inadequate medical and paramedical facilities are the main contributary factors for its very high incidence and mortality.

Prevention of tetanus is much easier than cure. In spite of costly treatment and management by specific team, the disease have a very high mortality.