INTRODUCTION AND

HISTORY OF LOCAL ANAESTHESIA

HISTORY OF LOCAL ANAESTHESIA

The first local anaesthetic to be discovered was cocaine, and alkaloid present in the leaves of erythroxylon cova. the purified alkaloid was first isolated and named by Albert Niemann's.

The introduction of cocaine in 1884 by Karl Koller as a local surface anaesthetic for the eye represented an important landmark in starting the history of regional anaesthesia **(Niemann, 1860).**

Other investigator, extended Koller's observation. In 1884 Hall described how he blocked a cutaneous branch of the ulnar nerve, in his own forarm. Also Halsted blocked Hall's supratrochlear nerve and removed and adjoining congenital cystic tumour **(Burke, 1884).**

In 1905 Braun introduced the term conduction anaesthesia and left that the use of epinephrine rendered conduction anaesthesia in other parts of the body as effective as that in an extremity. In the same year Braun published a textbook on local anaesthesia giving the detailed description of the technique for every region **(Braun, 1914).**

In 1869 the observation that subcutaneous injection of water produces local anaesthesia was apparently first

made by potain. In 1892 the term infiltration anaesthesia had been advocated by Reclus and Schleich.

In 1904 the procaine was synthesized and was introduced as potent agent for infiltration anaesthesia by Einthorn.

The term spinal anaesthesia was introduced by Croning in his famous second paper of 1885 **(Corning, 1885).**

Bier wanted to apply concaine anaesthesia for major operation so his assistant, hildebrandt, performed the lumbar puncture on Bier, but when the time come to attach the syringe to the needle, a crisis developed, the needle did not fit. A considerable amount of cerebrospinal fluid and most of the cocaine dripped on to the floor. To save the experiment, this time there was a good fit and complete success. The new's of Bier's work in April 1899 spread quickly and his method of subarachnoid spinal anaesthesia was soon brought into prominence by a report of 125 cases by Tuffier.

In the summer of 1900, Tuffier enunciated the rule (NEVER INJECT THE COCAINE SOLUTION UNTILL THE C.S.F. IS DISTINCTLY RECOGNIZED) **(Raymond Fink, 1980).**

In 1908 Bier devised a very effective method of bringing about complete anaesthesia and motor paralysis

of a limb. He injected a solution of novocaine (Procaine) into one of subcutaneous veins in area which had previously been rendered bloodless. This method was called direct vein anaesthesia (Fink, 1980).

The feasibility of injecting a local anaesthetic by the caudal route was demonstrated by the French urologist Cathelin in 1901. Cathelin based his approach on a careful anatomical study of the sacral canal and its contents. He found that fluids injected into the extradural space through the sacral hiatus rise to a hight proportional to the amount and speed of injection.

This also is proved by Lawen (1910). He injected coloured fluids into the sacral canal of cadavers and demonstrated that the fluid never appeared in the spinal canal, showing that the spinal canal was completely separated from the sacral canal by the dura matter. Lawen was the first to employ sacral anaesthesia for operative work, reporting 47 cases with an incidence of failure of 15 per cent (Fink, 1980).

Pauchet, in 1914, was credited with overcoming this incidence of failure by injecting the sacral nerves individually through the posterior sacral foramina, a method which has become known as trans sacral anaesthesia.

Continuous spinal anaesthesia (1940), was demons-

trated by clemmon and was transfered to obstetrical delivery by Edwards and Hingson, (painless labour).

Also continuous caudal block in obstetrics was also announced by Manolan in 1942, independently of Hingson's group (Manalan, 1942). Manalan introduced a number four urethral silk catheter through the lumen of a 14-gauge needle and thein withdrow the needle leaving the catheter in place for intermittent injection which was substituted by continuous gravity drip (Block and Rochberg, 1943).