RECENT ADVANCES

MINI PUMP MAY SPELL NEW ERA FOR DIABETICS

Doctors in London are getting encouraging results from the first trials of a new technique for giving insulin to diabetics. The insulin administrated through a very thin tube inplanted under the patients skin is delivered by a miniature pump attached to a syringe in a portable unit not bigger than a cigar box which can be worn strapped to armor body. The objective is to deliver the insulin at a very few and controlled rate similar to the natural rate of delivery on insulin to the body from the pancreas in a normal healthy person. It is hoped that by this technique the appearance of the long term symptoms of diabetes such as damage to *pelira kidney* and other organs will be reduced or delayed. □

SEEING INTO CANCER CELLS BY SOUND

Electronic engineers at University College, London, have developed an acoustic microscope which forms its picture by sound waves instead of visible light. It is being used for Cancer research and for medical, biological and other purposes where sound is proving its worth as an aid to diagnosis.

The greatest advantage of this microscope that it can examine untreated living tissue, so early detection of Cancerous changes might be possible in the future. □

Refernece
John Newell B.B.C., Science Unit

ULTRA SOUND

During the last decade ultrasonic technique has developed from a medical curiosity into an accepted form of diagnosis. Today it is a widespread and acknowledged investigative method, and in many sensitive areas of diagnosis it is likely to replace conventional radiology.

The system employs evey low energy ultrasound and can be regarded as the logical extension of conventional two dimensional scanning systems. It is intended for a wide range of internal organ investigative work — on the pancreas, kidney, liver and spleen for example — and provides information in obstetrics from the fourth week of pregnancy. □

By Alan Daventry
Technical Feature
London Press Service

Quote No. TQ 2503/8

from Japan

NEW PEDIATRIC FIBERSCOPE EASES FOREIGN OBJECT REMOVAL

From Medical Tribune, Tokyo

TOKYO—A foreign body in a child's trachea or bronchus may be removed easily and accurately with the use of a fiber-tracheobronchoscope newly developed by Dr. Seiji Saito and his colleagues at the ENT Department, Keio University Medical School. A nationwide survey indicates that 53.3 % of all patients with a tracheal or bronchial foreign body are less than 15 years old, and 40.9 % are less than five years old. Ingenious measures are required for removal of vegetable foreign bodies such as peanuts, which are sometimes life threatening in the case of younger children.

The newly developed device has an image fiberscope which makes easier diagnosis and treatment under direct vision of the trachea or bronchus, Dr. Saito told the World Congress on Bronchoscopy held here. The image fiberscope is only 1.8 mm in diameter.

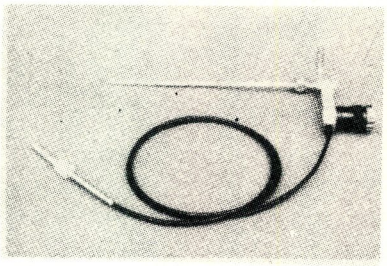
When the lens of a conventional bronchoscope is contaminated with secretion, it has to be pulled out for cleaning. With the new device, however, cleaning in situ may be done by inserting a water tube. It provides a life-sized image

at a distance of 20 mm and a two-fold image at a distance of 10 mm from the object lens, yet it ensures a higher quality of resolution than old devices.

First, the patient is given induction anesthesia and a muscle relaxant. An anesthetic tube is then connected to the device's side adapter, a clear cap is attached on the top, and observation is made through the fiberscope's eyepiece. For removing a foreign body, the cap is taken off and forceps inserted.

As a result of his experience in using the device to remove foreign body in some 20 cases, Dr. Saito believes that it is a safe and accurate procedure for diagnosis and treatment of children as young as eight months.

Coauthors were Drs. Yuzuru Ono, Man Abu Sato, and Toshio Ishizaka of the same ENT Department. □



Fiber tracheobrohchoscope for children provides high quality, double life sized image, lens cleaning in situ , and camera attachment for permanent record.