Introduction

ESOPHAGEAL ATRESIA & Tracheoesophageal fistula:

Esophageal atresia has special importance to pediatric surgeons.

Defination:It is a developmental and anatomical discontinuity of esophagus with or without communication with trachea.

Esophageal atresia is a congenital defect which means it occurs before birth ,there are several types of it, in most cases the upper esophagus ends blindly& doesn`t connect with the lower esophagus and stomach, but lower esophagus connect to the trachea, this connection is called Tracheoesophageal fistula(TEF).

Some people with TEF have other problems as heart or other digestive tract disorders.

EA&TEF may be associated with other birth defects as VACTERL association.

The incidence of it is about 1:4000 births in USA and about 1:2240 in Finland (David C,David Zieve:2009)

The Pathogenesis is unknown , but it may be inherited as an autosomal recessive genetic trait , or may result from developmental problems in a fetus ,most likely result from complex gene-environment interactions.

There are several theories of EA &TEF as : 1-Teratogene(doxoribcin)

2-Posterior deviation of the septum

3-Faliure of recanalization

4- HOXD group of genes.

Prenatal diagnosis is difficult , so the baby will need a thorough evaluation after birth to confirm diagnosis, EA&TEF may be suspected if no stomach bubbles is seen in the fetus and there is polyhydramnios, this two signs are cause for suspicion but aren`t conclusive for diagnosis, fetal MRI may be useful for diagnosis.

When EA&TEF suspected before birth it is recommended that chromosomes be evaluated as it can be associated with Triosmy 21,18,.... (Mastsuokas, Takeuchi, Fetal diagnosis,2003.).

Post natal diagnosis:

Most infants with EA are a symptomatic in the first few hours, earlist sign is excessive salivation , typically first feeding is followed by regurgitation , choking, & coughing , other features are cyanosis with or without feeding, respiratory distress, inability to swallow & inability to pass a feeding tube to the stomach, so X-ray easy to diagnose it.

Soon after diagnosis ultrasonography to be done for the heart& kidney with possible X-Ray for the limbs, to know other associated anomalies like VACTERL association, and to know the length between upper and lower esophagus.

Management of EA is surgical, time of surgery depend on:

1-Birth weight

2-Other associated major anomalies

3-The gap between upper& lower esophagus.

Surgery may be immediate , later ,or staged depend on previous factors.

Outcome of surgery improved from 52% in 1962 to more than 95% now due to improved Neonatal intensive care unit. (James A.O`Nell,Arnold G.Coran,2006).