

Cystic Fibrosis

- Cystic - Fluid filled Fibrotic - Fibrous tissue
- It is a autosomal recessive disorder. with CFTR (Cystic fibrosis Transmembrane Conduction regulation) is affected.

Pathology:

CFTR $\rightarrow$ Pump chloride ions into the secretions
 $\downarrow$
Chloride ions draws water into the secretions
 $\downarrow \times \rightarrow$ thickness of secretion.
Thinning of secretion.

Clinical features

1) Newborn $\rightarrow$ Meconium (first stool gets thick & sticky)
 $\downarrow$
Stuck in intestines
 $\downarrow$
Intestinal obstruction.

2) Childhood.

- Thick secretion from pancreas block the duct.

$\downarrow$
No pancreatic enzymes

$\downarrow$
Protein & Fat ^{not} Absorbed.

$\downarrow$
(Weight gain, Failure to thrive)

$\downarrow$
Steatorrhea (Fat containing stools)
 $\downarrow$
Cholelithiasis

$\downarrow$
Inflammation

$\downarrow$
Acute and chronic Pancreatitis.

$\downarrow$
Fibrosis.

$\downarrow$
Endocrine damage.

$\downarrow$
Insulin dependent Diabetes Mellitus.

3) Later in childhood.

Respiratory System $\rightarrow$ Recurrent infection

$\downarrow$
Thick mucus

$\downarrow$
Elasticity lost

$\downarrow$
Bronchiectasis

(Pneumonia)

$\downarrow$ Recurrent

Respiratory

iv) Adulthood:

- Triad in Men (Associated with absence of var deversa)
- Nasal Polyps

Complication:

- Pulmonary hypertension $\rightarrow$ left ventricular hypertrophy $\rightarrow$ Cor Pulmonale
- $\rightarrow$ Intestinal obstruction, Portal hypertension, Biliary Cirrhosis, Cholelithiasis

Investigation:

$\uparrow$ Sweat chloride content

Management:

Avoid marriage between the relatives

