

### 73. MODERN VIEWS IN THE ETIOPATHOGENESIS OF UROLITHIASIS

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**Scope:** Investigate the data and research about the contemporary aspects of the etiopathogenesis of retention and growth of urinary calculi.

**Objectives:** 1. To determine the uropathogenic factors involved in the formation of urinary calculi. 2. To analyze the susceptibility of the urinary tract in developing urolithiasis. 3. To investigate the relevant mechanism of retention and growth of urinary stones. 4. To determine the application of the theoretical mechanism of urolithiasis in practice.

**Materials and methods:** Analyzing studies based on radiologic methods such as endoscopy and computer-assisted microscopy to prove the formation of calculi on the Randall plaques and plugs in the lumen of the collecting ducts.

**Conclusions:** 1. Lithogenesis represents a succession of physicochemical events which imply the action of diverse factors in specific conditions. 2. Randall plaques is the most important factor in the pathogenesis of stone formation and their growth. 3. Plugs in the lumen of the collecting ducts represent an important pathogenetic factor in lithogenesis, moreover this is involved in the some forms of cortical diseases. 4. Distinguishing from the following types of stone formation and their growth mechanisms could contribute to the understanding of calculi formation.

**Keywords:** urolithiasis, Randall plaques, ductal plugs

### 74. STUDAY OF CONTEMPORARY LITERATURE ON THE TOPIC OF CONGENITAL BOWEL OBSTRUCTION

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**Background:** Neonatal intestinal obstruction (NIO) is one of the most common emergency conditions a paediatric surgeon is called upon to assess during the neonatal period. Successful management of NIO depends on timely diagnosis and referral for therapy.

**Material of study:** Intestinal obstructions are either intrinsic or extrinsic. Intrinsic lesions result from absent (atresia) or partial (stenosis) recanalization of the intestine. In cases of atresia, the two segments of the gut may be either completely separated or connected by a fibrous cord. In cases of stenosis, the lumen of the gut is narrowed or the two intestinal segments are separated by a septum with a central diaphragm. Apple-peel atresia is characterized by absence of a vast segment of the small bowel, which can include distal duodenum, the entire jejunum and proximal ileus. Extrinsic obstructions are caused by malrotation of the colon with volvulus, peritoneal bands, meconium ileus, and agangliosis (Hirschsprung's disease). The most frequent site of small bowel obstruction is distal ileus (35%), followed by proximal jejunum (30%), distal jejunum (20%), proximal ileus (15%).

**Result:** Although the condition is usually sporadic, in multiple intestinal atresia, familial cases have been described. Associated abnormalities and chromosomal defects are rare. In contrast with anorectal atresia, associated defects such as genitourinary, vertebral, cardiovascular and gastrointestinal anomalies are found in about 80% of cases.

**Conclusion:** Infants with bowel obstruction typically present in the early neonatal period with symptoms of vomiting and abdominal distention. The prognosis is related to the gestational age at delivery, the presence of associated abnormalities and site of obstruction. In those born after 32 weeks with isolated obstruction requiring resection of only a short segment of bowel, survival is more than 95%. Loss of large segments of bowel can lead to short gut syndrome, which is a lethal condition.