Pathogenesis

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Stone formation results from a cascade of events that occur during and after urine formation. When the concentration of culprit salts such as calcium and oxalate overwhelm inhibitory factors (e.g. citrate, potassium, magnesium, Tamm–Horsfall mucoproteins, pH changes), they Sushruta , 600 /uni00A0 /b.sc/c.sc/e.sc , authored Sus ´ruta-sam hita ¯, considered the father of plastic surgery . . Igor Tamm , 1922–1995, an outstanding cytologist, virologist and biochemist, pioneer in the study of viral replication, professor at the Rockefeller Institute for Medical Research, New Y ork, NY , USA. Frank Lappin Horsfall Jr , 1906–1971, American microbiologist specialising in pathology , worked at the Rockefeller Institute, New Y ork, NY , USA. The Tamm– Horsfall protein was first purified in 1952 during his work with Igor Tamm. Alexander Randall , 1883–1951, American urologist, first described the plaques in 1937 as part of a postmortem case series using a hand lens. o ff with the flow of urine or they may anchor onto sites like renal papillae to form Randall's plaques. Variations in the pH of urine may also facilitate or inhibit stone gr owth; acidic pH precipitates the formation of uric acid stones and alkaline pH precipitates the formation of calcium phosphate stones. Hence, the manipulation of pH through medication can help in preventing new stone formation. Stasis of urine also promotes stone formation. Stasis stones - are usually multiple, round and have a smooth surface. These are called 'milk of calcium stones'.

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