



10 Points On Renal Cysts: Associate Professor Sree Appu

1. Renal cysts are a common incidental finding on ultrasonography. 50% of 50 year old patients will have 1 or more renal cysts on imaging.
2. The majority of renal cysts are Simple Renal Cysts. These are almost always asymptomatic even at very large sizes. They pose no significant risk of malignancy, infection, hypertension or impact on renal function.
3. Occasionally simple renal cysts can cause localized pressure symptoms. Even less commonly they can compress the renal pelvis causing obstruction (parapelvic cysts).
4. Simple renal cysts only require treatment if symptomatic or if there is uncertainty regarding the classification.(see below)
5. The mainstream management of large simple renal cysts is CT guided drainage to assess symptomatic improvement. Half of these cysts will recur and if the benefit is confirmed - CT guided sclerosant instillation is effective in collapsing the cyst. Some large cysts benefit from laparoscopic marsupialisation.
6. Some renal cysts are Complex or Atypical. The imaging classification is known as the Bosniak Classification System and quantifies the risk of malignancy.
7. Bosniak 1 Cysts = Simple Renal Cysts. Low risk of malignancy and need no follow up imaging.
8. Bosniak 2 Cysts = Atypical but still likely to be benign. These often have septations and may reflect previous (hyperdense) bleed into cyst but do not enhance significantly with contrast. Malignancy risk 10-15% and need follow up with imaging only.
9. Bosniak 3 Cysts = Strong atypia with enhancement or dense calcification raising the possibility of cystic renal cell carcinoma (50%). These generally need to be removed.
10. Bosniak 4 Cysts = Have clear cut solid enhancing areas and are almost certainly malignancies which need surgical removal.