WHAT ARE RENAL CYSTS?

Renal cysts are fluid sacs that develop within the kidney. They can vary significantly in size from very small to very large (even greater than 10cm). They can occur in up to 35% of people over the age of 50 and in the vast majority of cases they are benign (non-cancerous). Some people may have multiple renal cysts and in some cases they may be related to an underlying medical condition or have a genetic (inherited) component.

WHAT ARE THE SYMPTOMS OR COMPLICATIONS OF RENAL CYSTS?

In general, renal cysts do not cause any symptoms even if they are very large. On very rare occasions, it is possible for them to cause the following symptoms:

Dull back or flank discomfort Blockage of urinary tract (if pushing on ureter tube) Fever or pain if infected (this can sometimes occur after needle drainage/aspiration)

HOW ARE RENAL CYSTS DIAGNOSED?

The diagnosis is usually very straight-forward and made on ultrasound. The vast majority are an incidental finding on a scan. Most of these are classified as 'simple' renal cysts which means that the chance of cancer is essentially zero. These cysts do not require any further investigation, treatment or follow-up regardless of size. Occasionally a cyst will be classified as a 'complex' renal cyst. In this case further scan, usually a CT, will be required to establish what, if any, treatment or follow up is required.

WHAT ARE THE TREATMENT OPTIONS FOR RENAL CYSTS?

Most renal cysts do not require treatment (simple renal cyst) Some renal cysts require surveillance scans with ultrasound or CT Rarely some kidney cancers have a cystic component – this will be diagnosed by your family doctor or Urologist with a CT scan – in these cases, the management is as per renal cancer* Any cyst classified as 'complex' requires evaluation by a Urologist

MEDICAL CLASSIFICATION OF RENAL CYSTS (BOSNIAK) – YOU MAY SEE THIS ON YOUR CT SCAN REPORT:

Bosniak 1: simple renal cyst, no follow up required Bosniak 2: chance of malignancy rare, follow up not usually required Bosniak 2F: chance of malignancy up to 5%, follow up recommended with serial scans Bosniak 3: chance of malignancy up to 50%, treatment (surgical removal should be considered) Bosniak 4: cystic renal cancer, should be treated as such

Written by Dr. Shekib Shahbaz and Dr. Tony de Sousa

Chang, C. C., Kuo, J. Y., Chang, W. L., Chen, K. K., Chang, L. S., (2007), Prevalence and clinical cahracteristics of simple renal cyst, Journal of the Chinese Medicine Association, 70(11),

[https://pubmed.ncbi.nlm.nih.gov/18063502/#:~:text=Result accessed 18/02/21.

Agnello, F., Albano, D., Micci, G., Di Buono, G., Agrusa, A., Salvaggio, G., Pardo, S., Sparacia, G., Bartolotta, T. V., Midiri, M., Lagalla, R., Galia, M., (2020), CT and MR imaging of cystic renal lesions, Insights Into Imaging, 11(5),

[https://insightsimaging.springeropen.com/articles/10.1186/s 019-0826-3], accessed 18/02/21.