

Answers to Medical Quiz

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A.1. Dilatation of left pelvicalyceal system and left ureter

A.2. Vesico-ureteric reflux and megaureter

A.3. Micturating cystourethrogram

A.4. Megaureter or vesico-ureteric obstruction

DISCUSSION

Megaureter is defined as a congenital disorder of the ureter that exceeds the upper limits of normal size. In children, any ureter greater than 5 mm in diameter is considered a megaureter. In the 70's, Smith and Stephens presented that megaureter may be obstructed, refluxing, both refluxing and obstructed or unobstructed and not refluxing¹.

Primary (congenital) megaureter is a result of a functional abnormality involving the ureterovesical junction or intrinsic ureteral muscular factors; secondary megaureter results from abnormalities that involve the bladder (neurogenic bladder or infection) or urethra (posterior urethral valves)².

Primary megaureter is classified according to the presence or absence of reflux and obstruction. Management of primary megaureter depends upon the type of megaureter^{2,3}.

The megaureter is a common cause of obstructive uropathy among neonates and young children. Twenty-three percent of patients with upper urinary tract dilatation could be diagnosed by prenatal ultrasound. The condition is more common in boys than girls, more on the left side and 25% are bilateral⁴. Most of the megaureter cases are now discovered prenatally and others discovered after renal impairment or urinary tract infections⁵.

In addition to ultrasound and MCUG, Tc-99m MAG3 diuretic scintigraphy is recognized as a reliable method, even in children, for evaluating hydronephrosis. However, Belkis et al found that diuretic renography was unreliable in the neonatal period because of the low glomerular filtration level at that age; a minimum age of one month was recommended for follow-up by diuretic renography⁵.

A high rate of spontaneous resolution of or decrease in urinary tract dilatation is expected for most cases of primary megaureter after 12 months of conservative treatment by prophylaxis antibiotic^{6,7}.

Indications for surgery included recurrent or breakthrough urinary tract infections, decreased renal functions and increased degree of hydroureteronephrosis⁶⁻⁸. The choice of surgical intervention in obstructive megaureter is the excisional tapering and reimplantation⁹.

CONCLUSION

Primary obstructive megaureter is an uncommon disease. Most of the cases are now discovered prenatally and conservative management with long term follow-up is appropriate management. Surgery is indicated in recurrent or breakthrough urinary tract infections, decreased renal functions and increased degree of hydroureteronephrosis.

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