

Answer to Medical Quiz - 1

Answers:

- Ans. 1. Multiple air pockets withing parenchyma of both kidneys.
- Ans. 2. Class 4 emphysematous pyelonephritis.
- Ans. 3. Diabetes mellitus
- Ans. 4. Resuscitation (if in shock), intravenous broad spectrum antibiotic, glycaemic control (using insulin), release of urinary flow obstruction (if any), surgery (in selected cases) along with supportive measures like antipyretics.

Review:

Emphysematous pyelonephritis is an uncommon necrotizing infection of kidney parenchyma, collecting system and peri-nephric area and is characterized by accumulation of gas. Patients with diabetes mellitus, immunosuppressed condition and those having urinary flow obstruction by stones, tumour or renal papillary necrosis are at increased risk of developing emphysematous pyelonephritis.¹ The spectrum of microorganisms responsible are the same of acute pyelonephritis with *Escherichia coli* being the commonest.² Hypoxic conditions and fermentation of glucose by enteric microorganisms produce gases.

Clinical presentation mimics acute pyelonephritis. Classification is based of CT scan findings.¹ Treatment modality has changed over the previous decades; availability of effective broad-spectrum antibiotics, interventional procedures and multi-disciplinary approaches have revolutionized these changes and nephrectomy is now a less preferred option but should not be delayed as and when necessary.¹⁻³

References:

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