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## STUDY OF THE CORRELATION CRYSTALLURIA URINARY TRACT INFECTION IN SUBJECTS LITHIASIS

### Hypothesis / aims of study

Nephrolithiasis is frequently associated with infection of the urinary tract, but the contribution of infection to the formation of urinary stones has declined significantly in industrialized countries over the past 30 years due to testing and more effective treatment of urinary tract infections. Few data exist concerning Algeria.

### Study design, materials and methods

To assess the current situation in Algeria, the urine of 306 patients collected revival of urology services at several hospitals in western Algeria (617samples representing 2 / per patient) were analyzed for the study of crystalluria (polarized light microscopy) and the search for microorganisms urease (urinalysis).

### Results

The study of the urine revealed a positive crystalluria in 39.22% of cases: 131 were infected urine is 21.25% with 13.02% for males and 25.64% for women.

### Interpretation of results

The major constituent of the crystals observed in the macroscopic study was calcium oxalate with 50% of cases followed by uric acid and phosphates with 25% each. *Staphylococcus sp* was identified in 21.37% cases followed a *klebsiella* in 15.26%, 13.74% *E.coli* and *Proteus* with a 9.16% with difference between sex where women are more affected than men. Other seeds were much less frequent.

### Concluding message

Urinary tract infection is another common cause of urolithiasis in Algeria by the formation of crystals of magnesium ammonium phosphate hexahydrate (struvite) occurs at the second place after the calcium oxalate with the frequency of 25% at the level of crystalluria study.

### Disclosures

**Funding:** Faculty Of Sciences, University of Mostaganem **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics not Req'd:** This study was approved by the Scientific Laboratory of the University of mostaganem **Helsinki:** Yes **Informed Consent:** Yes