Objectives: There are few studies on crystalluria in the developing countries. The aim of the present study was carrying out a first study in Morocco on the frequency and the chemical nature of the crystalluria according to the sex and the age of human individuals living in the Tadla Azilal Moroccan area. Method: 200 samples resulting from the morning urines of morning fasting individuals of the two sexes and different ages were collected. The pH was measured by a portable pH-meter “Pocket pH-meter ad 110 pH”. The identification of the chemical nature of the crystalluria was carried out using a polarized light microscope “Olympus BX41”. Such identification was based on morphology, polarization, and the pH of the urinary crystals. Results: In this series the positive frequency of crystalluria was 25.4% and was distributed on 3 age groups so that 27.9% in the youngest group, 32.6% in the middle aged group and 39.5% in the oldest one. The distribution on the sex is such as 53.4% in the man and 46.5% in the woman. A large majority (83.7%) of the crystalluria consists of homogeneous crystalluria. In the man, the Weddellite is dominant (69.6%) in the crystalluria while in the woman the Weddellite yields the place to the two phases of the uric acid (60%). Conclusions: The studied series presents a non high frequency of crystalluria, which increases with the age. The factor sex has weakly increased the frequency of crystalluria in the man compared to the woman. The oxalocalcic nature is dominant in the crystalluria resulting from the man while it is the uric nature that is so in the woman. Other studies are necessary to be able to understand the etiology of a such difference, in the chemical nature of the crystalluria, between the two sexes.

Keywords
Crystalluria, Frequency, Weddellite, Whewellite, Uric acid, Calcic phosphates complex, Amorphous urate complex