Regional and seasonal variation in the incidence of urolithiasis in Iran: a place for obsession in case finding and statistical approach

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Abstract: The objective of the study is to measure the incidence rate of urolithiasis in a nationwide population-based study by a new methodology. A multi-stage stratified "epsem scheme" sampling was designed among imaging centres in 12 ecologic regions (composed of 30 provinces) while the regions were assumed as independent epidemiologic units. Four temporal phases were determined for sampling to represent four seasons. Imaging-proven positive cases for urinary stones were included and questionnaire filled out by interview. 2,955 new cases of urinary stone were included and the overall pooled yearly incidence rate was 136/100,000 (95% CI, 103-168). The whole positive group had a mean age of 41.5 years (SD = 16.3 years) and composed of 57.9% male. The most common season for presentation of disease was autumn. Geographically, the west and north of Iran, and seasonally, autumn have shown the highest incidence rates for the urinary tract stones. To establish the real burden of urinary stone disease, our study adds a little piece of information to the worldwide epidemiology of urolithiasis.

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