

EPISODES OF FEBRILE URINARY TRACT INFECTIONS OCCUR MORE OFTEN IN THE WINTER IN PATIENTS WITH SPINA BIFIDA.

Hypothesis / aims of study

Febrile urinary tract infections (f-UTI) commonly occur in spina bifida patients and may lead to severe renal dysfunction. Prior knowledge of risk factors of f-UTI could be useful in clinical practice. Specifically, seasonality of episodes was examined herein.

Study design, materials and methods

140 spina bifida patients (male:79, female:61) with history of more than 6 months of outpatient visits since January, 1971 were included in the analysis. Median age at first visit was 3.03 yrs (range: two days-43.7 years), with median observation period of 11.5 yrs (range:0.6-43.7yrs). Retrospective chart review was performed regarding (1) episodes of f-UTI; (2) urination management at the latest visit in patients with f-UTI; (3) the number of and (4) the season of visit for f-UTI. F-UTI was defined by medical records specifically ascribing the term, clinical presentations consistent with the diagnosis (fever and high grade pyuria with back pain and/or scrotum pain), or f-UTI requiring hospitalization. We calculated the incidence of f-UTI per patient, as well as odds ratio, expected values and chi-square test for seasonality.

Results

68 patients(48.6%) had at least one episode of f-UTI, with a total of 183 episodes. 40pts (58.8%), 20pts(29.4%), and 8 pts (11.8%) experienced one or two, three to five, and more than five episodes, respectively. Urinary management in patients with f-UTI was performed as follows: self-voiding: 8cases (11.8%), self-voiding with clean intermittent catheterization (CIC):4 cases(5.9%), CIC alone:49 cases(72.1%), CIC+ retained catheter at night time:5 cases(7.4%), vesicocutaneous fistula:2 cases(0.9%), with history of autoaugmentation in 15 cases (22.1%). The episodes and incidences of f-UTI were found to be higher in the winter (61; 0.0348) compared to the spring (41; 0.0235), summer (41; 0.0252) and autumn (37; 0.0210), with the odds ratio of the incidence relative to all other being 1.497($p=0.009$), 0.870 ($p=0.425$), 0.954 ($p=0.784$) and 0.755 ($p=0.120$), respectively.

Odds ratio of the incidence of f-UTI

winter	1.497 (0.009) (1.438-1.559)	Risk odds p value 95%confidence interval
spring	0.870 (0.425) (0.650-1.165)	
summer	0.954 (0.784) (0.718-1.268)	
autumn	0.755 (0.120) (0.714-0.798)	

Interpretation of results

Significantly higher incidence of f-UTI were observed in spina bifida patients in the winter compared to the other seasons. Literature search has yielded no prior reports on the seasonality of f-UTI.

Concluding message

Significantly higher incidence of f-UTI were observed in spina bifida patients in the winter compared to the other seasons.

Disclosures

Funding: Nothing **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** this is prospective study. **Helsinki:** Yes **Informed Consent:** Yes