Paramecium Colonizing Urinary Tract of a Patient on Dialysis: A Rare Entity

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Dear Sir,

Ciliated protozoans are characterized by the presence of cilia on their whole or to a limited area of the body. Typically, they have a distinct cytostome (cell mouth) and a cyto-pyge (anal pore). They have a large macro- and a micronucleus.

Most of the ciliates are free-living, while some live in a wide variety of habitats in the digestive tract of invertebrate and vertebrate hosts. The only species incriminated as pathogenic to humans so far is *Balantidium coli* which occasionally causes fulminant colitis and appendicitis [1].

To the best of our knowledge, there is no mention of *Paramecium* colonising the human viscera or cavity. Here we report, most probably for the first time, intractable urinary tract infection due to *Paramecium* sp.

I.C.N., a 75-year-old male patient operated for carcinoma of the larynx 5 years back was admitted to this hospital (All India Institute of Medical Sciences, New Delhi) in comatose stage with inability to pass urine for the past 2 days. His relevant past history revealed that he had been operated for carcinoma of the larynx about 5 years ago and had had tracheostomy. On physical examination, he was in grade III coma, suffered from wasting and had mild dehydration, anemia and prostatic hyperplasia with retention of urine with obstructive nephropathy. His pertinent laboratory investigations during his hospital stay revealed that his hemoglobin ranged from 12 to 15.5 g%, TLC from 11,000 to 12,100/mm³ with 80% polymorphs, 18% lymphocytes and 2% eosinophils. His blood sugar remained between 160 and 216 mg%, urea was 150-300, serum creatinine 4.2-11.8 SGOT/PT 149/113 to 272/844 and alkaline phosphatase 416-516 during the terminal stage of his life. His ultrasonographic and computerized tomographic examinations revealed normal kidneys but cerebral atrophy and obstructive uropathy with secondaries in the brain, liver and prostate. Urine examinations showed presence of albumin (3 +), but sugar was absent and so were ketones. There were red blood and pus cells present in his urine. Curiously, numerous fast moving conoid to oval structures were seen on microscopy. When these organisms were examined after formaline fixation, they were identified to be the *Paramecium* sp. Not much significance was given to this, and a laboratory report of contaminated sample was dispatched. However, repeat samples again