OBJECTIVE: Insertion of percutaneous endoscopic gastrostomies (PEG) in patients on chronic peritoneal dialysis (PD) has been reported to be contraindicated due to an increased risk of morbidity and mortality. However, no systematic survey on this topic has yet been published. DESIGN: Retrospective multicenter study. SETTING: 23 pediatric dialysis units associated with the working group Arbeitsgemeinschaft für Pädiatrische Nephrologie (APN). DATA SOURCE: A structured questionnaire on clinical details of PD patients who had undergone PEG insertion or open gastrostomy (OG) since 1994 was distributed to all pediatric dialysis units of the APN. RESULTS: 27 PD patients (20 males) from 12 centers in whom PEG insertion was performed after Tenckhoff catheter introduction were evaluated. Age at intervention ranged from 0.25 to 10.9 years (median 1.3 years). Most patients were malnourished, with standard deviation score (SDS) for body weight between -4.2 and -0.6 (median -2.2). Major complications were early peritonitis < 7 days after PEG in 10/27 (37%) patients, episodes of fungal peritonitis in 7/27 (26%) patients, 4 cessations of PD and change to hemodialysis, and 2 associated deaths. However, in 14 patients, no such problems were encountered and, in 4 patients, early peritonitis effectively treated with
intraperitoneal antibiotics was the only major complication. Thus, in 18/27 (67%) patients, PD was successfully reinitiated shortly after PEG insertion. Among all participating centers, only two OG procedures were reported during the study period, illustrating a clear preference for the PEG over the OG procedure among members of the APN. CONCLUSION: PEG insertion following PD initiation carries a high risk for fungal peritonitis and potential PD failure; however, complication rates in this largest reported series were lower than previously described. Antibiotic and antifungal prophylaxis, withholding PD for 2 - 3 days, and gastrostomy placement by an experienced endoscopy team are suggested precautions for lowering the risk of associated complications. When gastrostomy placement does not occur prior to or at the time of initiating PD, the risks and benefits of percutaneous versus open placement must be carefully weighed.