

COMPARISON OF SMALL BORE CATHETER ASPIRATION VS CHEST TUBE DRAINAGE IN THE MANAGEMENT OF SPONTANEOUS PNEUMOTHORAX - A PROSPECTIVE, RANDOMIZED STUDY.

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Spontaneous pneumothorax (SP) represents a common clinical problem. Initial management of patients with SP depends on pneumothorax volume and the severity of symptoms. The aim of the study was to compare the efficacy of SP treatment with two therapeutic regimens: manual aspiration via a small bore pleural catheter and chest tube drainage. The study was performed in patients admitted to the Department of Pneumology due to the first episode of spontaneous pneumothorax. Patients with pneumothorax that required intervention were randomly scheduled for manual aspiration with a small bore pleural catheter (8 Fr) (G1 group) or standard pleural tube insertion (20-24 Fr) and underwater seal (G2 group). 49 patients were enrolled, mean age was $46,9 \pm 21,3$. There were no differences in the baseline characteristics of G1 (n=22) and G2 (n=27) groups. Immediate success rates were 62.0% for G1 versus 82% for G2 ($p < 0,05$). There was a difference in time of drainage of G1 group: median (IQR) 2 (1-14) days versus 6 (1-14) ($p < 0,05$). Four patients in group G1 required subsequent chest tube insertion due to persistent air leak and failure to obtain lung reexpansion. Our results show that manual aspiration might be less effective treatment than chest tube drainage in terms of immediate lung reexpansion. Small bore pleural catheter and manual aspiration results in significantly shorter time of drainage.