Outcomes of Large Bore Vs Small Bore Percutaneous Nephrolithotomy

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ABSTRACT

Objective: To determine postoperative results of large bore vs small bore PCNL.

Design and duration: This is a prospective study. It was started in November 2018 and completed in April 2019 after 6 months duration.

Setting: Study was conducted in Kidney center of Bahawal Victoria Hospital Bahawalpur.

Patients and Methods: Patients having kidney stones and ideal for PCNL were distributed in two groups in randomized way. Group-1 patients underwent small bore PCNL and those in group-2 underwent large bore PCNL. There was equal number of cases in each group. Both male and female patients were included in the study. Mean duration of stay in hospital was 7±3 days. All data collected was analyzed using SPSS and Microsoft office version 2016. Results were calculated in the form of frequencies and percentages and averages. Tables and Graphs used to present data. Consent was taken from ethical committee of the study hospital and consent was also taken from all cases in study group.

Results: There were total 90 cases in this study distributed in two groups each containing 45 cases. There were 37 female and 63 male cases. Mean age of patients was 33.5±5 years. Mean anesthesia time was 1.5±0.5 hours in both groups. Mean analgesia given in group-1 was 100±50 mg.

Conclusion: In our study small bore PCNL was proved to be better than large bore PCNL associated with least complications and early recovery with less hospital stay and less use of analgesia.

Key Words: PCNL, renal stone, small bore, percutaneous, outcomes

INTRODUCTION

Renal stones are very common among Pakistani population due to lack of pure water. It is very frequent in peripheral and rural areas which are underdeveloped. In big cities as well pure water is not available. Renal stones have high prevalence in our population and males are more reported with renal stones than female population. Open nephrolithotomy has high rate of complications and is being replaced by a new method of percutaneous nephrolithotomy with least complications. PCNL is done either via small bore, large bore or tubeless technique. In our study we compared results of small bore vs large bore pcnl. Renal stones are very common among Pakistani population due to lack of pure water. It is very frequent in peripheral and rural areas which are underdeveloped. In big cities as well pure water is not available. Renal stones have high prevalence in our population and males are more reported with renal stones than female population.

Patients and Methods

This is a prospective study conducted in a tertiary hospital Bahawal Victoria Hospital Bahawalpur. Study was completed in six months duration. Patients were selected via randomized controlled trials. Patients having kidney stones and ideal for PCNL were distributed in two groups in randomized way. Group-1 patients underwent small bore PCNL and those in group-2 underwent large bore PCNL. There was equal number of cases in each group. Both male and female patients were included in the study. Mean duration of stay in hospital was 7±3 days. All data collected was analyzed using SPSS and Microsoft office version 2016. Results were calculated in the form of frequencies and percentages and averages. Tables and Graphs used to present data. Consent was taken from ethical committee of the study hospital and consent was also taken from all cases in study group.

Results

There were total 90 cases in this study distributed in two groups each containing 45 cases. There were 37 female and 63 male cases. Mean age of patients was 33.5±5 years. Mean anesthesia time was 1.5±0.5 hours in both groups. Mean analgesia given in group-1 was 100±50 mg. Patients having kidney stones and ideal for PCNL were distributed in two groups in randomized way. Group-1 patients underwent small bore PCNL and those in group-2 underwent large bore PCNL. There was equal number of cases in each group. Both male and female patients were included in the study. Mean duration of stay in hospital was 7±3 days. All data collected was analyzed using SPSS and Microsoft office version 2016. Results were calculated in the form of frequencies and percentages and averages. Tables and Graphs used to present data. Consent was taken from ethical committee of the study hospital and consent was also taken from all cases in study group.

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In our study small bore PCNL was proved to be better than large bore PCNL associated with least complications and early recovery with less hospital stay and less use of analgesia.
collected was analyzed using SPSS and Microsoft office version 2016. Results were calculated in the form of frequencies and percentages and averages. There were 34% cases between 15-25 years, 20% between 26-35 years, 30% cases between 36-50 years and 14% cases were above 50 years age.

(Figure-1) frequency of Complications among cases in group-1 and group-2

DISCUSSION

Open nephrolithotomy has high rate of complications and is being replaced by a new method of percutaneous nephrolithotomy with least complications. PCNL is done either via small bore, large bore or tubless technique. In our study we compared results of small bore vs large bore pcnl. Renal stones are very common among Pakistani population due to lack of pure water. It is very frequent in peripheral and rural areas which are underdeveloped. In big cities as well pure water is not available. Renal stones have high prevalence in our population and males are more reported with renal stones than female population. Renal stones are very common among Pakistani population due to lack of pure water. It is very frequent in peripheral and rural areas which are underdeveloped. Mean duration of stay in hospital was 7±3 days. All data collected was analyzed using SPSS and Microsoft office version 2016. Results were calculated in the form of frequencies and percentages and averages. There were 34% cases between 15-25 years, 20% between 26-35 years, 30% cases between 36-50 years and 14% cases were above 50 years age. In big cities as well pure water is not available. Renal stones have high prevalence in our population and males are more reported with renal stones than female population. Open nephrolithotomy has high rate of complications and is being replaced by a new method of percutaneous nephrolithotomy with least complications. This is a prospective study conducted in a tertiary hospital Bahawal Victoria Hospital Bahawalpur. Study was completed in six months duration. Patients were selected via randomized controlled trials. Patients having kidney stones and ideal for PCNL were distributed in two groups in randomized way. Group-1 patients underwent small bore PCNL and those in group-2 underwent large bore PCNL. There was equal number of cases in each group. Both male and female patients were included in the study. Mean duration of stay in hospital was 7±3 days.

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