



PATTERN OF POST DURAL PUNCTURE HEADACHE AMONGST NON-OBSTETRIC SURGICAL PATIENTS IN JLNMC, BHAGALPUR, BIHAR

Anaesthesiology

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ABSTRACT

The entire research defined the postural puncture headache within the non-obstetric patients in Bhagalpur through the epidemiological survey. It implies the basic problems and issues that can mention the probable chances to implement epidural catheter to reduce the chances of premature rupture. It includes the basic compositions of the medicine and the way it affects the patients as per the gender segregation. Study also implies the effect through time and duration of the pain and hypertensive nature of the pain with inclination of high blood pressure. Study includes proper justification and rationale to highlight the necessity of managing the issues and factors and the way it evaluates accurately.

KEYWORDS

Amoxicillin, Anaesthesia, Ceftriaxone Clavulanate, Epidural Catheter Implementation, Epidemiology, Metronidazole, Non-Obstetric, Post Dural Puncture Headache, Prophylaxis

INTRODUCTION

Overview of the research topic

Post-dural puncture headache defines the physiological state where it occurs due to the lack of efficiency and negligence during the time of anaesthesia. Present study has been establishing the research thesis over the epidemiology of post-dural puncture headache among the non-obstetric surgical people to make a comparison with the obstetric patient. Study would define the issues regarding the invasive performances during the pregnancy and that it has changed the pattern before the delivery of the child. Researchers have raised the question regarding the spinal headache or post-dural puncture headache for multiple time invasion of the anaesthesia and association of the other comorbidities.

Prior research

Research topic has the elaborated discussable domain where majority of the researchers have argued regarding the performances of the medical activities. The inefficiency of the medical surgery must have the consequence of getting a severe headache with sniffing and nausea after the childbirth¹.

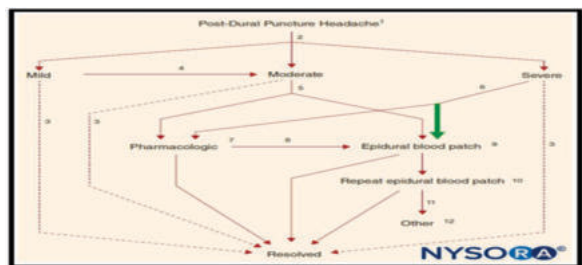


Figure 1: Research prior through skeletal structure¹

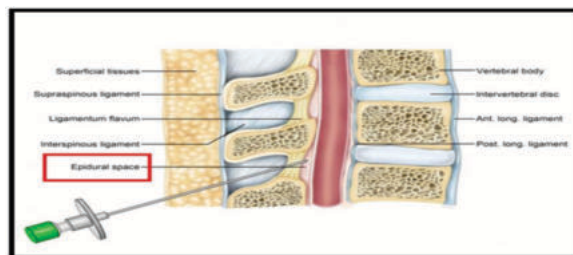
It frequently happens for the patient who prefers to implement epidural catheter treatment before the childbirth to reduce the chances of premature rupture of membranes (PROM)². It might develop the epidemiology within the patients to derive the basic ideas for the impact within the obstetric and non-obstetric performances within the pregnant women.

Rationale

Post-dural puncture headache among the non-obstetric surgical people is a unique and innovative research topic to discuss regarding the pattern of treatment and the way it differs.

Even non-obstetric surgery usually excludes foetal surgery, caesarean delivery, surgery on the gestational uterus body and dilatation and curettage for examining the other physiological characteristics³. It becomes important to analyse the frequency and chances to exhibit the pattern of post-dural puncture headache among the non-obstetric women.

Figure 2: Source of anaesthesia and reaction with the additional body patterning¹



Methodology

Research paper has assimilated secondary information for thematic analysis for observing the growth and enhancement of the spinal headache side effects.

Thesis statement

The report would exhibit the pattern of post-dural puncture headache within the non-obstetric patients in the Bhagalpur tertiary health institutions.

Outline

Research has focused on the Bhagalpur territory area to observe the pattern of post-dural puncture headache within non-obstetric women through qualitative data analysis. It might assimilate the quality of factors to stigmatise the particular issues causing the uneasiness within the patients.

MATERIALS AND METHODS

Research type

Methodology is an important part for all of the research to highlight the utilisation of process and procedures for extracting the data from the definite research area. It becomes helpful to mention the pattern of data and the way it different the way of analysis and decision making for the hypothetical clarification. Present context has been exhibiting the medical report over the epidemiology of frequency of the medicinal side effects. By expanding the research methodology, the research area has been utilising secondary methods for collecting data on post-dural puncture headache within the non-obstetric patients in the Bhagalpur tertiary health institutions.

It might imply proper statistical presentation and epidemiological justification to highlight the differentiation between Bhagalpur area and global perspectives. It would enrich the data structure for the entire research paper to mention the thematic pattern to describe the collected information. Study has to point out the valuable and exact factors behind the medicinal side effects before or after the childbirth and ante partum complications due to negligence of laboratories⁴.

Data collection

Researchers have collected data from medical journals and articles to assimilate the authentic information from the medical reviews. They

have also gathered information from journals, articles on research methodology with peer-reviewed confirmation of the last five years from 2017 to recent times. It also has focused on the Bhagalpur area and the empirical institutions with internet searching and statistical justification. Research has also highlighted e-journals, e-article, newspaper reports, medical magazines and medical websites to collect information on the research topic.

Data analysis

Research has justified the process of data analysis through the definite ways to highlight the methods of data processing. It has highlighted thematic analysis with secondary information to follow up the factors important to the research topic. It has exhibited 3 the data processing to justify the epidemiology and statistical frequency over the expansion of research topics in Bhagalpur area. It has not directly connected the quantitative data where it has criticised and generated knowledge and ideas by the previous works of veteran researchers.

Research equipments

Research has used secondary data collection strategy as the research equipment to extract information from the collected data. It has stigmatised the qualitative data collection from journals, articles and web searching which might help to enhance the factors. It has also implied the table, chart and graph analysis to extract information and derive a proper consequence of the entire research area. It has not refined the necessity of implementing the SPSS, MS Project and PYTHON because it has not calculated the Primary data as well.

Rationale

The reason behind taking the methodology is to highlight the definite procedures to collect data and extract important information. It has mentioned the necessity of secondary data collection because of saving the excess time consumption and complication. Primary data would take excess time and make the analysis complicated and it would not possible collect enormous quantitative data. For maintaining the limitations, research would exploit the thematic analysis with criticising the tables, charts and graphs to follow the pattern of epidemiology of post-dural puncture headache within the non-obstetric women in Bhagalpur areas.

RESULTS

The result shows the frequency and definite expansion of 4th headache type that varies within male and female and it triggers the age boundaries. The discussion of the entire study has to highlight the non-obstetric post-dural puncture headache that is different from the situation of the pregnant women.

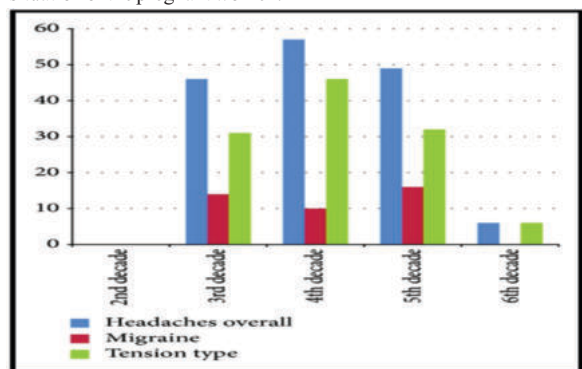


Figure 3: Types of headache after the anaesthesia¹

The bar chart has been showing different colours which has stood for multiple patterns of headache within the non-obstetric patients in Bhagalpur, India. The blue colour has been signifying the overall headache with nausea and insomnia. The red colour has been justifying the migraine effect with severe pain on the front facial areas. Green colour has been clarifying the headache of hypertension with high blood pressure on the occipital part of the brain.

It shows the higher level indicates the overall headache in the 4th decade as the power of gender equality⁵. Graph has also expressed that the 6th decade has a lower number of overall headaches and hypertensive headaches amongst the entire population. In the case of migraine pain, it has stimulated the idea where it has exhibited the highest impact in the 5th decade within the population of Bhagalpur, India.

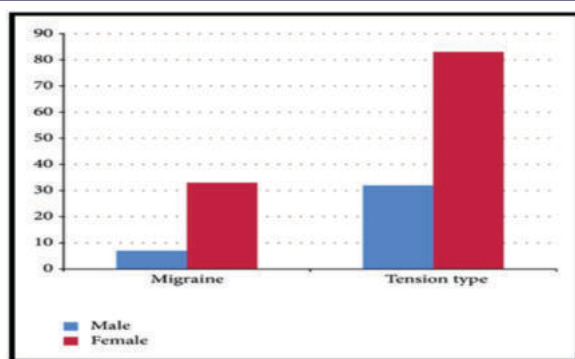


Figure 4: Pattern of headache as per the gender segregation¹

The bar graph has been showing the definite pattern of headache within the population as per the gender segregation. It has implied that the red colour has been justifying the pain within the female and the blue colour has stood for the male. It has depicted two distinct types of headache such as migraine and hypertensive headache and hereby the pattern of epidemiology within the population⁶. Graph has expressed the highest value of the hypertensive headache within the female and lesser effect of migraine pain within the males. This might imply the biological and physiological components to justify the pattern of health issues and immunology to define the impact of post-dural puncture headache.

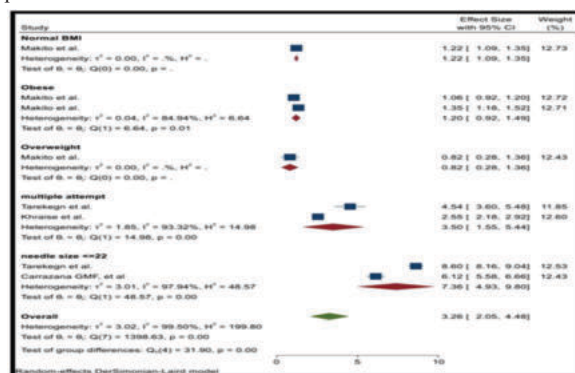


Figure 5: The impact of body size and pattern towards the post dural headache¹

The table has been showing the pattern of body size and weight and the way it differs to mention the effect within the non-obstetric patients in Bhagalpur. Table has been clarifying the people (male and female) with normal BMI, Obese and non-obese to clarify the effect and the continuous frequency⁷. It has stated that the probability of the effect became higher within the people with normal BMI and lesser within the people with non-obese. It also has exhibited the needle size before invasive aesthetic activities to the non-obstetric patients in Bhagalpur area. It has revealed the impact became higher for the needle size <=22 and lesser for the multiple attempts to make the local anaesthesia⁸. It has implemented the idea towards the size of needle that has varied the impact of headache as per the gender boundaries and age liabilities.

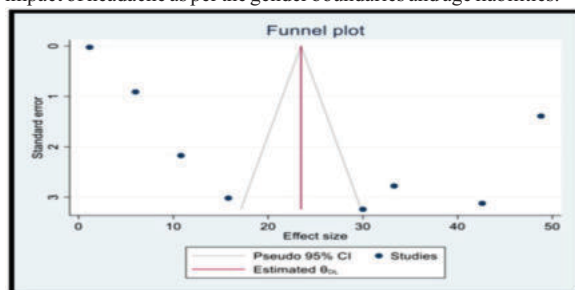


Figure 6: Funnel plotting to analyse the CI¹

The funnel plotting has mentioned the impact of the adiposity within the non-obstetric patient by calculating the conicity index (CI) and the way it differs. In the upper chart, it has clearly expressed the pseudo probability of the CI that differs within 15 to 30 scaling⁹. The chances

have implemented the possibilities up to 95% of having the post-dural puncture headache within the non-obstetric patients in Bhagalpur¹⁰. The estimated value has developed the ideas to oppose the hypothesis and lessen the amount of adiposity to make the changes within the CI. It has been carrying the chances up to 5% to modify the impact of the definite problems within the patients as well.

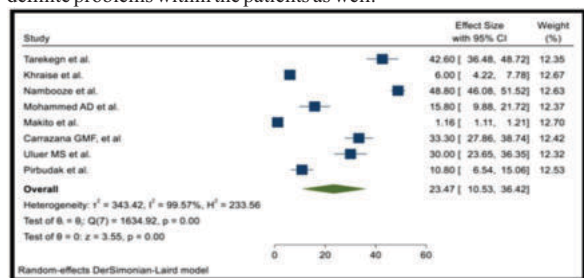


Figure 7: Variable affecting the analysis and probabilities of CI'

The table has created the constructivist idea regarding the value analysis, which might help to understand the possibilities to differ the CI calculations¹¹. It maintains the impact of adiposity within the patients, which has been facing the effect of anaesthesia. In this above-mentioned context, researchers have to highlight the variable within probability and no probability of the CI among the patients having epidural catheter implementation¹². It has highlighted the chances are increasing the possibilities towards the effect of adiposity within the patients with lesser chances of changes. The θ value has been implementing the lesser value of changes in the case of non-obese people who have lack of adiposity¹³. It might generate the overall idea to identify the impact on the patients with comorbidities or women with pregnancy and not supporting due to the impact of diabetes and other non-communicable diseases.

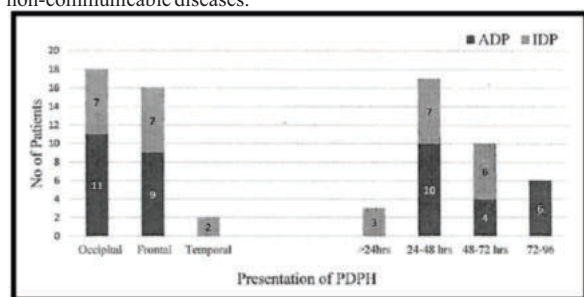


Figure 8: Non-obstetric patients with post dural puncture headache'

The image has been showing the number of patients with post-dural puncture headache with non-obstetric treatments within both male and females. The graph has been showing the areas of headache, which has also implied the association of time and the entire duration of pain¹⁴. Majority of the patients are suffering from occipital headache, which has been triggering the hypertensive nature of the patients¹⁵. The lesser amount of headache has stated the pain on the temporal area of the brain, which has indicated the migraine pain¹⁶. As per the analysis of time, it has shown that the duration has been continuing from 24 to 48 hours with acute nausea and loss of appetite¹⁷. Lesser time duration has stood up to 72 to 96 hours for exhibiting the massive amount of pain with acute nausea¹⁸. The black colour has been showing the impact of Adenosine diphosphate (ADP) and grey colour has been showing the impacts of Intrinsically disordered protein (IDP)¹⁹. Majority of the problem has been rising with the effect of ADP with lack of appetite and acute effect of nausea. Patients who are going to have the invasive medical treatment are having the lack of effects of IDP, as protein analysis would not affect the medicinal side effects.

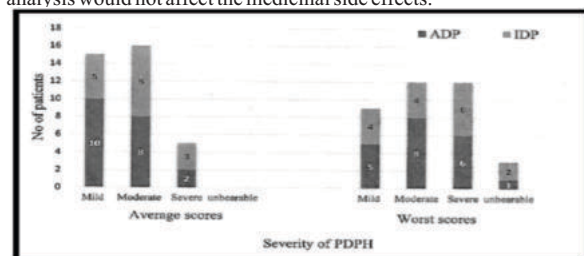


Figure 9: Non-obstetric patients with severity of post dural puncture headache'

The image has been showing the effect of the internal physiological components with the analysis of severity to justify the process of probability. In this context, the image has been showing the moderate impact or severity within the patients and lesser amount of unbearable pain within the patients. It occurs due to the impact of ADP as the medical component increases the quality of ADP component within the matrix²⁰. It also has deposited the duration of pain that has spawned the higher value up to severe time consumption. It has mentioned the probable chances to highlight the definite pattern of the immunology and the body composition to control the protein analysis²¹.

Study must have implemented the different impact, severity and epidemiology of the post-dural puncture headache within the non-obstetric patients with different treatments in JLNMC Bhagalpur. Majority of the study has described the symptoms and the way it differs from male to female whereas it has not mentioned the age barrier as well. The graph and charts have given the proper idea regarding the impact of Nausea and hypertensive headache within the patients rather than migraine and overall pain²². The probable chance and post researches have highlighted the physiological value of the patients with definite mode of blood matrix composition. After the invasion of the anaesthesia, it would increase the ADP level within the blood that has triggered the high blood pressure within the patients JLNMC Bhagalpur.

Consequently, patients are facing hypertensive headache for 24-48 hours before taking the antidote to reduce the effect of nausea. Researchers have claimed that the impacts are not age dependent rather the probability has revealed that the problem is body size and adiposity dependent with higher chances within the female²⁴. Majority of the Indian and JLNMC Bhagalpur journals have stated that women have the anaesthesia before pregnancy for multiple non-obstetric treatments and feel nausea after the childbirth.

DISCUSSION

In the figure 3, it has mentioned the types of headache within the population according to the age group as well. It has mentioned that patients between the age group of 36.9 ± 7.9 years are suffering from acute hypertensive headaches. Figure 4 has implied that 72.8% females have been suffering from hypertensive headaches where 39.3% females are predominant²⁵. On the other hand, the probability has mentioned the value up to ($P < 0.0001$) for the overall headache types. It has also revealed that 80.4% of patients did not go for the medical consultation where 19.6% of patients go for doctors. The probability has implied the value up to ($P = 0.000$) where 83.9% females consult the general physician and 16.1% females consult neurologists.

Figure 5 and Figure 6 has been justifying the Funnelling impact and the epidemiology of the body size and BMI within the patients. It has revealed that 23.47% patients are suffering with differences within the BMI that triggers the conicity index calculation. It has exhibited that the value of BMI differed within 3.26, 1.29 and 1.77 where the probability has shown the value up to 95% chances. It has presented the issues with differences within the medical facilities in India and Bhagalpur that has affected the impact of the medicinal side effects. It has described that 32.4% patients are suffering from the effect of metronidazole, 27.5% have been suffering from ceftriaxone, 8.2% are suffering from amoxicillin + clavulanate and India medical team has used surgical antibiotics prophylaxis for anaesthesia²⁶. The components are mentioning the consumption of medicines during the time of anaesthesia, which affects the patients with different BMI.

Figure 7 and Figure 8 have mentioned the effect of ADP and IDP that have reacted within the matrix to enhance the chances of the hypertensive headache within the patients. It has revealed that 25% patients are suffering from the effect of ADP where 3.9% patients are suffering from the effect of IDP. It has also ensured that the oral consumption of pregabalin 75 mg within the non-obstetric patients in Bhagalpur, India causes postural issues and headache.

The research analysis also implies the severity as per the age group and gender segregation, which also fits for the further calculation of the epidemiological survey. It has revealed that ± 58.0 is the mean age group to highlight the impact of the severity where 55.9% patients are

showing the odd ratio as well. Apart from that, it has also depicted the severity through the implementation of intrathecal catheter where 55.2% - 25.0% patients are showing the value of probability up to 95% with the CI value of up to 3.7²⁷. It has given the different value of association where severity has not depended on the adiposity within the patients of Bhagalpur, India. It has enhanced the value of the conicity index of up to 1.2–11.2 when the value of probability has mentioned up to (P=0.02).

The statistical analysis of Figure 8 has expressed that 23.47% patients with normal BMI irrespective of gender segregation are not facing any issues through the entire ADP severity²⁸. The analysis of the entire result has implemented the 95% confidence for the probable chances to highlight the impact of the POR within the females in Indian with hypertensive headache²⁹. Probabilities have been of up to 1.22 unlike it has observed the differentiation within the PPDH such as 1.09, 1.35. Medical teams of India has implied the over impact of the post-dural puncture headache would increase the value of up to 3.50 where it would make the dissimilar and abnormal pattern of estimated values of up to 1.55, 5.44³⁰.

The study must have the necessity to understand the definite probabilities to mention the co morbid within the patients who are actually suffering from the issues. It has highlighted the pattern of changes within the patients and it changes due to the different body compositions. It has implemented the body composition diversifying within the females as they have the oral consumption of the medicines as well. Additionally, it makes changes within the calculations and brings the concept of anonymity within the epidemiology.

CONCLUSION

Research study has mentioned the probabilities to highlight the areas to justify the impact of medicinal components through the entire treatment. In this context, researchers have limited their areas to study the postural headache within the non-static points within the JLNMC Bhagalpur, India. It has claimed the post up to the gender segregation and patterning of consuming the anaesthetic medicines before the treatments. In the other cases, study has mentioned the mean age value where the entire post-dural puncture headache severity has not been age-dependent. It has mentioned the chances of body size and pattern, which has directly affected the chances of severity. Research has revealed the different pattern of headache within the females because of the epidermal catheter implementation at the time of gestational period. Study has clearly described the probabilities to mention the effects within the entire population through the inclination towards high blood pressure and hypertensive headache.

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