Planned Eye Care Procedure in Comatose Head Injury Patients

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A quasi experimental study to evaluate the effectiveness of planned eye care procedure in comatose patients with head injury admitted in the Neuro-Surgical Units of Nehru Hospital, Post Graduate Institute of Medical Education and Research, Chandigarh in the year 2003.

Eyes are the most vital gate way of enjoying the pleasure of the world. "Take care of eyes, eyes will take care of you". Nothing conveys feelings and motions between individuals more intensively than the instant expression of the eye. The role that vision plays in our life is difficult to define because it is so deeply personal and intimate. It is the connection between the mind and body and rest of the world.

The visual pathway is a multidimensional system with many structures and processes subject to trauma or disorders. When there is failure of any part along the visual pathway, the result is loss of vision which is closely associated with loss of independence. The prevention or early recognition of such harmful signs depends upon the careful monitoring and evaluation by the investigator. The observations can be augmented and supported by giving care to head injury patients in order to identify critical changes in the cornea and to determine further treatment protocols. Care of eyes is considered to be one of the most basic of nursing activities. All these head injured comatose patients are totally dependent and are unable to look after their eyes and these patients are prone to develop exposure keratopathy because of impaired protective reflexes and incomplete lid closure resulting to further complications.

Objectives

- To evaluate the effectiveness of planned eye care procedure in comatose patients with head injury.
- To develop procedure for eye care of comatose patients with head injury.
- To develop criteria for evaluation of effectiveness of planned eye care procedure in comatose patients with head injury.
- To administer the planned eye care procedure in experimental group.
- To evaluate the effectiveness of planned eye care procedure implemented in experimental group in comparison to control group.
- To analyse and interpret the collected data.

Methodology

The study was undertaken to evaluate the effectiveness of planned eye care procedure in comatose patients with head injury admitted in Neuro-surgical units of Nehru Hospital, Post Graduate Institute of Medical Education and Research (PGIMER) Chandigarh in the year 2003. A quasi-experimental research design was carried out for the study. There were 31 study subjects in control group and 32 study subjects in experimental group respectively. Purposive sampling technique was used to select the study subjects. For selecting study subjects, their identification data, socio-demographic data was collected from the patient records and attending relatives.

An observation checklist, including Schirmer’s test was used to collect the clinical data. Schirmer’s test was performed on first day and fifth day in both the groups. To avoid contamination of sample, 1st control group was selected till the sample reached 31. This group was getting routine care by hospital staff, experimental group was selected and eye care along with tarsorrhaphy was done twice daily for five consecutive days. Then data was analysed and interpreted.

Analysis and Interpretation

The data collected during the course of study has been analysed by using descriptive and inferential statistics. In the de-
scriptive statistics, mean, percentages and standard deviation were used to analyse their socio demographic characteristics. Inferential statistics chi-square unpaired t-test and paired t-test was employed. Majority of respondents i.e. (93.6%) were males in both groups. Both the addictions (Alcohol/smoking) were prevalent in both the groups.

Majority of respondents i.e. (64.5%) had incomplete eyelid closure in control group whereas only (6.3%) had incomplete eye lid closure in experimental group. Majority i.e. (31.3%) of respondents developed exposure keratopathy in control group whereas no respondent developed exposure keratopathy even on 5th day. Majority of respondents (29.1%) in the control group had abnormal Schirmer's test findings on baseline assessment and (67.74%) had abnormal Schirmer's test findings on the 5th day of the observation whereas, in the experimental group on baseline (32.3%) had abnormal Schirmer's test findings but none of the respondents had abnormal findings on 5th day. The reason for these differences towards improvement in the ophthalmic assessment could be because of maintaining complete eye closure by tape tarsorrhaphy, eye case, early detection by using Schirmer's test and timely instillation ofocular lubricants among the respondents of experimental group.

Conclusion

Exposure keratopathy is a common problem among comatose head injury patients whose protective reflexes become totally impaired and they become dependent on health care providers. The routine care provided to these patients is not sufficient, but the care to be provided to these comatose patients should be standardized and their care takers should be given proper instructions regarding eye care, proper hand washing, timely instillation of ocular lubricants and maintenance of complete eye lid closure to prevent exposure keratopathy and further complications.

It is mandatory for the professional nurses to be knowledgeable, skilled and willing to maintain eye hygiene in comatose head injury patients in order to improve the quality of patient care and prevent vision loss among these patients who survive.

Nursing Implications for Practice & Education

Nursing practice is based on mixture of research, anecdote, tradition, theory and hunch. A demand for safe and effective health care requires nurses to develop the necessary skills in order to incorporate findings of research into practice. It will help the nurses to strengthen their confidence in demonstrating eye care procedure, instillation of ocular lubricants and proper maintenance of lid closure to the comatose head injury patients' families. They will be able to answer their perplexing queries about potential complications and their management. It would generate scientific literature for trained nurses as well as student nurse for the future references.

Nurses also need to give more attention to comatose head injury patients and encourage relatives about aseptic technique to reduce the effect of impaired immune system. This study will assist professional nurses to enhance their clinical competence through the application of findings of this research in their day-to-day eye care practices.

Nursing Research

Similar study with a large sample can be conducted in many national neuro-surgical centers with longer duration to standardize the eye care procedure, assessment tools and tests to generalize the findings of the study.

References