RISK FACTORS OF PRESSURE ULCER IN ELDERLY NON-OPERATIVE FEMUR FRACTURE PATIENT

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ABSTRACT

Background: Pressure ulcers are skin and tissue alterations that develop in a specific area because of friction and shared force. They may also happen when both things happen at the same time. All damage caused by continuous pressure on a body surface, such as a hard bed surface, wheelchair sitting, or an improperly fitted lower limb prosthesis, results in increased pressure on the body's bone structures. Individuals over the age of 65 with a non-operative femur fracture should have their risk factors treated to avoid getting a pressure ulcer.

Objective: The goal of this research is to find out what causes pressure ulcers in elderly people who have a non-operative femur fracture.

Methods and components: In this example, a case control study was carried out utilizing questionnaires developed by the respondents. The information was gathered at the Chaudhry Muhammad Akram Teaching & Research Hospital in Lahore, the Jinnah Hospital in Lahore, the Sheikh Zayed Hospital in Lahore, and the Mayo Hospital in Lahore. The study was carried out three months after the summary was approved. A non-probability sampling approach was used to acquire the data. The sample size was determined using "Rao soft," with a total sample size of 113.

Results: According to one research, 65% of 138 patients experienced faecal incontinence; 27% spent more than two weeks in the hospital; 39% had wet skin owing to urine incontinence; 55% were impacted by mattress pressure; 46% had poor nutrition; and 50% had trouble shifting positions. Shear force and frict were also shown to be important factors. Pressure ulcers are common in elderly people who have fractured femurs. Individuals who have faecal incontinence, stay in an intensive care unit for more than two weeks, have moist skin owing to urine incontinence, have items pushing on the bone, are malnourished, or have friction acting on their body are all at risk of acquiring one.

Conclusion: Patients with femoral fractures are more likely to develop a pressure ulcer if they have faecal incontinence, spend more than two weeks in the intensive care unit, have moist skin due to urine incontinence, the mattress puts pressure on bony prominences, the patient is malnourished, and the friction is greater than 1.00.

Keywords: Pressure Ulcer, Risk Factors, And Non-Operative Femur Fracture Elderly Patients

INTRODUCTION

Pressure ulcers may reduce people's overall quality of life, accelerate death in certain people, and cost health-care organisations a lot of money. As a consequence, prevention and control are essential. There are two forms of pressure ulcers: They are caused by long-term pressure and deformation of the skin and subcutaneous layers between internal hard anatomical features and exterior surfaces or devices. (3) Pressure ulcers are a global problem, and support surfaces are often used to prevent them. A "bed sore" is a swollen region of skin and tissue caused by pressure, shear, or friction. PUs may be little or large, and they can reach all the way down to the muscle and bone under the skin. (5) Pressure ulcers are areas of skin and tissue damage caused by pressure, shearing, and friction. These factors have resulted in them. (5) Pressure ulcers are a common cause of patient safety issues and act as a gauge of the quality of care delivered by health care institutions. Nothing is known about the incidence of pressure ulcers among hospitalised patients in Nigeria (6). Pressure ulcers have been linked to increased hospitalisation time in both acute and non-acute care settings. Critically ill patients are more likely to develop pressure ulcers due to a complicating condition. (8) Quality and safety are crucial in the health care profession. Those in positions of power and those working in this profession have been concerned with crafting policies and goals that are responsive to the needs and aspirations of people with disabilities. Despite the fact that many patients who did

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not have surgery did not participate in the study, they observed that pressure ulcers were caused by low BMI and low albumin levels. A pressure ulcer is indicated by a drop in blood pressure. It is vital to analyse the patient's risk factors prior to surgery. Using a method like as the multiple regression technique (MRT) to identify the most important factors influencing PU development: It is vital to analyse the patient's risk factors prior to surgery. Using a method like as the multiple regression technique (MRT), you may determine which features are most important for PU growth. A research was carried out to ascertain the chance of an older person with a broken hip obtaining a PU. (11)A study was carried out to establish the cause of pressure ulcers. A prospective cohort study is the name given to this kind of research. (12) Prolonged surgery and general anaesthesia increase the risk of developing PU in the critical care unit. In a hospital setting, environmental variables might lead to the development of a pressure ulcer. (11) On the first day following surgery, the patients developed pressure ulcers, needing a whole day in bed. The majority of pressure ulcers were seen on the sacrum, toes, or buttocks. (13) People with a femoral neck are more likely to get pressure sores. This study investigates the efficacy of Interface's pressure-relieving mattress in preventing PU. (14) Nutritional deficiencies, such as low albumin and vitamin C, A, and E insufficiency, may increase the chance of developing a pressure ulcer. At Ireland, P. Gallagher et al. did a study on how to reduce pressure ulcers in teaching institutions (15 and 16). (2008). A pressure ulcer was discovered in 18.5 percent of the people. As a consequence of their hospitalisation, 77 percent of patients developed pressure ulcers. Grade one accounted for 49 percent, grade two for 37 percent, grade three for 11 percent, and grade four for 3 percent. Pressure ulcers are connected with impaired mobility, urinary incontinence, low serum albumin levels, cognitive impairment, and hospitalisation for an extended period of time. There was no link found between the likelihood of getting a stress ulcer and age, gender, or documentation of risk assessment. On the correct support surface, 65 percent of pressure ulcers were formed.

Lindgren, M., et al. investigated the risk factors for pressure ulcers in patients who had surgery in 2005. They looked at 41 people who acquired pressure ulcers. Pressure ulcers were more prevalent in senior people who weighed less, had a low BMI, and had a low blood albumen level. Women were more likely than men to get pressure ulcers, and the more women who had them, the worse they were. (16 & 17)

M. Baumgarten and colleagues investigated the risk variables for pressure ulcers in elderly adults with hip fractures (2003). The goal of this study was to assess the risk that a patient with a hip fracture would develop a pressure ulcer while in the hospital, as well as what caused it. Individuals with fractures are more likely to develop a pressure ulcer because they must wait longer for surgery, endure more operations, stay in the critical care unit, and have general anaesthesia. Extrinsic factors, such as hospitalisation, can enhance the risk of getting a pressure ulcer.: (11) 1999: N.A. Stott's, Inc. investigated the risk of developing a pressure ulcer in a surgical patient. He believes that immobility contributes significantly to the development of bed sores. 14 and 19 Goode, H.F. E. Burns, and others studied vitamin C deficiency and its relationship to pressure ulcer fractures in patients.

Pressure sores on the necks of older adults with freckles are linked to low vitamin C levels in leucocytes. (15)

R.M. Allman and colleagues studied pressure ulcers in hospitalised patients. Urinary catheters, faecal incontinence, and low albumin levels were revealed to be the leading causes of pressure ulcers in the elderly. One-seventeenth of hospitalised patients are at high risk of getting a pressure ulcer, and those who are confined to a bed are at a higher risk than those who are not (12, 20, 21)

M. Versluysen studied how elderly persons with a broken femur develop pressure sores in the hospital. One hundred adults over the age of 65 were enrolled in a traditional hospital to find out why so many people with a broken neck of the femur got pressure ulcers. Eighty-three percent of the 66 patients who acquired pressure sores did so on the fifth day of their hospital stay, because they were compelled to remain immobilised on a high-pressure surface in the ward while their fracture and weight-bearing capacities were restored (11, 22)

The orthopaedic departments of these Lahore private and public hospitals were examined. The Chaudhary Muhammad Akram Hospital, the Social Security Hospital Lahore, the Mayo Hospital Lahore, the Hameed Latif Hospital Lahore, and the Jinnah Hospital Lahore are all located in Lahore. It was a case-control study that took three months to complete once the summary was approved. Individuals in this study had not undergone

surgery for a femoral fracture, had a pressure ulcer, and were above the age of 60. Participants with any other sort of fracture, a pressure ulcer, or a skin condition were not eligible to take part in this study. Individuals who had not had femur surgery and did not have a pressure ulcer were to form the control group. Anyone under the age of sixty. A femoral fracture was not on the list of things that couldn't be ruled out. The intended audience consisted of male and female elderly people who had a broken femur. We used a non-probability convenient sampling method. The sample size was calculated using the Raosoft online software. Participants in the study who met the inclusion criteria signed an informed consent form. A 12-item self-structured questionnaire was used to gather data. Following data gathering, information was securely kept to minimise bias.

ETHICAL CONSIDERATIONS: The data was collected while the patient was in the orthopaedic surgery department of the hospital.

A nurse or doctor had to approach a patient to get permission.

The information was personal.

The odds ratio and relative risk, as well as the mean and standard deviation, were calculated using IBM SPSS statistics version 16.

Table 1: Gender Its Frequency And Percentage.

Gender	Frequency	Percentage
Male	93	67.4
Female	45	32.6
Total	138	100

The percentage of male patients are involved (N=138, 67.4%), The total female patients are involved (N=138, 32%)

Table 2: Descriptive Statistics of Age

	Minimum	Maximum	Mean±SD
Age of patients	60.00	88.00	67.56±6.23

Age rang of the male and female patient are 60 to 88 years

Table 3: Risk Factors of Pressure Ulcer and Odds Ratio Value

RESULTS:

Pressure ulcers may have a negative impact on people's overall quality of life, hasten mortality in certain cases, and cost health care providers a lot of money. As a consequence, prevention and control are critical. There are two forms of pressure ulcers: Long-term pressure and deformation of the skin and subcutaneous layers between stiff anatomical structures and surfaces or devices outside the body cause them. Third, pressure ulcers are a major issue all around the globe, and support surfaces are often utilised to prevent them. A "bed sore" is a damaged region of skin and tissue produced by pressure, shear, or friction on the skin and tissue. PUs may be little or large, and they can extend all the way to the muscle and bone underneath. People with pressure ulcers have regions of skin and tissue damage caused by pressure, shearing, and friction. They have occurred as a result of these factors. (5) Pressure ulcers are a major source of patient safety issues and are used to assess the quality of health care provided. There is no data in Nigeria on how often pressure ulcers occur in hospitalised patients (6). Long stays in both acute and non-acute care settings have been associated to pressure ulcers. People who are very unwell are more prone to develop pressure ulcers due to a complicating condition. (8) In the health-care profession, quality and safety are critical. Persons in positions of power and those working in this profession have been concerned about developing policies and objectives that fulfil the needs and expectations of people with disabilities. Many persons who did not undergo surgery did not participate in the research, however it was shown that low BMI and low albumin levels were the leading causes of pressure ulcers. If your blood pressure is too low for an extended period of time, it is a symptom that your blood pressure is too low. Before undergoing surgery, it is critical to consider the patient's risk factors. Using a methodology like as the multiple regression technique (MRT) to determine which aspects are most relevant to PU development: Before undergoing surgery, it is critical to consider the patient's risk factors. Using an approach like as the multiple regression technique (MRT) can assist you in determining which aspects of PU development are most critical. A research was conducted to determine the likelihood that an older individual with a fractured hip would get a PU. (11)A research was conducted to determine what causes pressure ulcers. This kind of research is referred to as a "prospective cohort study." (12) Long surgery and general anaesthesia increase the likelihood of a PU in the ICU. People in hospitals might get pressure ulcers as a result of their surroundings. The patients developed pressure ulcers on the first day following surgery, requiring them to spend the whole day in bed. Almost everyone who had pressure ulcers had

them on their sacrums, toes, or buttocks. Pressure sores are more common in those who have a femoral neck. This research investigates the effectiveness of Interface's pressure-relieving mattress in avoiding PU. Nutritional deficiencies, such as low albumin and a lack of vitamins C, A, and E, might increase the likelihood of developing a pressure ulcer. P. Gallagher and others conducted studies in Ireland on how to prevent pressure ulcers at universities (15 and 16). (2008). A pressure ulcer affected 18.5 percent of those who went to the doctor. Because they were in the hospital, 77 percent of patients developed pressure ulcers. Grade 1 accounts for 49 percent of the total, grade 2 for 37 percent, grade 3 for 11 percent, and grade 4 for 3 percent. Pressure ulcers are associated with decreased mobility, urinary incontinence, low blood albumin levels, cognitive impairment, and a prolonged hospital stay. Having a stress ulcer has nothing to do with your age, gender, or whether or not you maintained a risk assessment record. Sixty-five percent of pressure ulcers were formed on the correct surface.

Lindgren, M., and her colleagues investigated the risk variables for pressure ulcers in patients who had had surgery in 2005. They examined 41 patients with pressure ulcers. They were more prevalent in senior persons who weighed less, had a low BMI, and a low serum albumen level, but they were also more common in younger people. Women were more likely than males to have pressure ulcers, and the more women who had them, the more likely they were to develop them. (16–17)

M. Baumgarten and colleagues investigated the risk variables for pressure ulcers in elderly adults with hip fractures (2003). The purpose of this research was to determine how often it is that a patient with a hip fracture would develop a pressure ulcer while in the hospital, as well as what caused it. People who suffer a fracture are more likely to have a pressure ulcer because they have to wait longer for surgery, have more operations done, remain in the critical care unit, and undergo general anaesthesia, all of which increase their chances of getting one. (19) N.A. Stott's, Inc. investigated the likelihood that someone undergoing surgery would get a pressure ulcer, as well as the likelihood that they would develop one while in the hospital, in 1999. He believes that people who are sedentary have a significant role in the development of bed sores. fourteen and nineteen

Goode, H.F. E. Burns, and others studied vitamin C deficiency with pressure ulcer fractures in humans.

Freckled older persons with low vitamin C levels in their leucocytes are more prone to develop pressure ulcers on their necks. (15)

R.M. Allman and his colleagues conducted studies on pressure ulcers in hospitalised patients. They discovered that urinary catheters, faecal incontinence, and low albumin levels are the most common causes of pressure ulcers in the elderly. One-seventeenth of hospitalised patients are at high risk of developing a pressure ulcer. People who are confined to their beds are at a greater danger than those who are not (12, 20, 21)

M. Versluysen investigated how persons with a fractured femur develop pressure sores while in the hospital. A total of 100 persons over the age of 65 were picked from a typical hospital to find out why so many people with a broken neck of the femur developed pressure ulcers. 83 percent of the 66 patients who developed pressure sores did so on the fifth day of their hospital stay. They had to stay in a high-pressure bed while their fractures and weight-bearing capacities were being restored, therefore they had to stay in a high-pressure bed (11, 22)

All orthopaedic units in Lahore hospitals were inspected. All of these hospitals are located in Lahore. Chaudhary Muhammad Akram Hospital and Social Security Hospital Lahore are the names of these facilities. This city is home to the Mayo Hospital, the Hameed Latif Hospital, the Hameed Latif Hospital, and the Jinnah Hospital, among many more facilities. It was a case-control research that took three months to complete once the author accepted the summary. This research looked at persons over the age of 60 who had not undergone surgery for a femoral fracture, had a pressure ulcer, and were over the age of 60. A person with any other kind of fracture, a pressure ulcer, or any other type of skin illness was not permitted to participate in this research. The control group would consist of persons who had not undergone femur surgery and did not have a pressure sore. Everyone under the age of 60 is eligible. A femoral fracture was not on the list of items that could not be removed. The target audience consisted of male and female elderly persons with a shattered femur. We employed a non-probability handy sampling approach. The sample size was calculated using the online Raosoft software. Participants in the study who satisfied the inclusion criteria completed a document outlining their rights and duties. A 12-point self-structured

questionnaire was used to gather data. Following data collection, the information was stored in a secure location to prevent bias.

The data was obtained when the patient was in the hospital's orthopaedic surgery department.

To get consent from a patient, a nurse or doctor had to approach him or her and speak with him or her.

The information was not made available to the public.

For this investigation, IBM SPSS statistics version 16 was used to calculate the odds ratio and relative risk, as well as the mean and standard deviation.

CONCLUSION

Pressure ulcers are serious complication of neck of femur fracture among non-operative elderly patients. Risk factors should be treated properly to prevent pressure ulcer among patients. Fecal incontinence, moist skin, poor nutritional status, long hospital stay and bed ridden patients are at higher risks for pressure ulcer. Shear force and friction should not act upon the patients. Proper pressure exerting mattress should be used at hospitals and home to prevent bony prominence for pressure ulcer.

RECOMMENDATION

Further research should be done regarding to pressure ulcer in non- operative neck of femur fracture elderly population in rural areas as well. It would help to make people aware about the risk factors of pressure ulcer and teach them prevention strategies.

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