

THE 'MARIA SCREENING INSTRUMENT' FOR POST-OPEN PROSTATECTOMY BLEEDING RISK: A QUALITATIVE STUDY

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Abstract

Construction of the Maria Screening Instrument Risk of Bleeding Post Open Prostatectomy” is a guide used to assess the risk of bleeding after open prostatectomy. Patients require 85% blood transfusion when resection exceeds 80% of the prostate. The surgical complications that are feared during open prostatectomy surgery are bleeding and obstruction of urine flow. This study aims to identify, analyze and develop a screening instrument for the risk of bleeding after open prostatectomy. The author conducted a qualitative exploration with 6 participants from different professions in a Focus Group Discussion (FGD) to get a picture of the need for instruments to become a necessity at Boven Digoel Regional Hospital, followed by expert consultation and revisions according to suggestions. The MARIA instrument is the choice for observing post-open prostatectomy patients, namely: Minimizing Blood Loss, Assuring Safe Treatment. Reducing Complications, Individualizing Care, Accelerating Recovery. Conclusion. Maria's screening instrument as a guide is needed to assess the risk of post-open prostatectomy bleeding. Assessment of post-prostatectomy patients should use assessment instruments that can be developed according to hospital needs.

Keywords: MARIA Screening Instrument, Post Open Prostatectomy, Risk of Bleeding

Introduction

The large gland surrounding the ejaculatory duct and urethra is called the prostate. The prostate is a single gland that completely surrounds the ejaculatory duct and urethra (McCormick & Raynor, 2020). Changes in the prostate in a number of men enlarge in middle to old age. Changes in the structure of the urinary duct occur slowly due to uncontrolled prostate enlargement (Murad et al., 2023). Uncontrolled prostate enlargement is influenced by several factors such as age and ineffective hormone function. Uncontrolled prostate enlargement is then referred to as Benign Prostate Hyperplasia Oseni (Oseni et al., 2023). Benign prostatic hyperplasia (BPH) is a benign tumor that most often occurs in men (Gift Crucifix Pender et al., 2023). Eight percent of men experience BPH at the age of 41-50 years, 50% at the age of 51-60, and >90% of BPH occurs in men over the age of 80 years. Based on autopsy studies, the prevalence of BPH increases from 8% in men aged 31 to 40 years, to 40 to 50% in men aged 51 to 60 years and > 80% in men over 80 years (ANDRIOLE et al., 2004),

Basic Health Research 2018 in Indonesia shows that benign prostatic hyperplasia is the second largest cause of morbidity after urinary tract stones. In the Indonesian population, in the last two years starting from 2018, 50% of men or 9.5 million men experienced benign prostate hyperplasia (Risksedas, 2018). Research conducted before, et al in 2020, every month there were approximately

47 patients who were operated on at RSUD Dok II Jayapura. Open prostatectomy at Boven Digoel Regional Hospital ranks fourth in surgical cases out of a total of 36 surgical cases (Sarauw et al., 2021).

Complications of post-open prostatectomy bleeding require nurses to be able to assess and manage prostatectomy bleeding properly and appropriately. Assessment of blood loss in post-open prostatectomy patients with a risk of bleeding at Boven Digoel Regional Hospital is still very simple. Preventive screening to reduce post-operative complications is carried out according to procedures, but no surgical treatment is completely without risk. This is still influenced by a lack of effective communication between service providers, resulting in frequent delays in inspections and actions. Based on these several things, construction of the 'MARIA Screening Instrument' for Bleeding Risk Post Open Prostatectomy at Boven Digoel Regional General Hospital, South Papua as a measuring tool to assess post open prostatectomy bleeding at Boven Digoel Regional Hospital.

Method

The design in this research is a qualitative research approach. This research describes narratively the phenomenon of nurses in efforts to minimize post-open prostatectomy bleeding, prevent complications, improve the patient's mental status and maintain the patient's condition according to the patient's normal body function. The research was conducted within a period of one month, namely March 2024 at Boven Digoel Regional Hospital.

The construct in this research is validity which is related to the ability of a tool to measure the understanding of the concept it measures. The MARIA instrument is a qualitative statement that can be used to build a risk screening instrument for bleeding after open prostatectomy surgery using the MARIA approach (Minimizing blood loss, Assuring safe treatment, Reducing complications, Individualizing care, and Accelerating recovery) for health workers. Open prostatectomy is prostate surgery which is performed by making an incision in the lower abdomen to remove part or all of the prostate gland. Surgical incisions are divided into two, namely surgical procedures by making an incision in the retropubic area and in the perineal area (rectum and scrotum).

Based on this definition, what is meant by "Construction of Postoperative Bleeding Risk Screening Instruments in Open Prostatectomy Patients" is a tool used to measure the risk of bleeding after an open prostatectomy.

Qualitative exploration was carried out in a focus group discussion involving 10 nurses who described their life experiences in treating post-open prostatectomy bleeding patients at Boven Digoel Regional Hospital while also validating instruments related to risk factors and statement guidelines according to research needs.

Data collection in this research was carried out using focus group discussions. The data that has been collected is then grouped based on the types of factors that influence bleeding after open prostatectomy. At the data analysis stage, the author looks at the data that has been grouped so that the relationship between one data and other data is illustrated. The authors sorted and excluded data that did not correlate with the need for post-open prostatectomy bleeding assessment. Next, compile it into one instrument using the MARIA formula. The answers to these questions provide valuable insight and input in developing a comprehensive bleeding risk screening instrument that meets the needs of clinical practice. Bagian ini menguraikan metode penelitian secara ringkas. Terdiri dari desain, populasi, sampel, sumber data, alat ukur/instrumen, teknik pengumpulan data, dan analisa data.

Result

Minimizing blood loss

Participants were nursing randomly selected from the surgical treatment room, operating room, VIP ICU room, medical laboratory technologists (ATML) room and surgical specialists room.

The perceptions of participants in this study reveal the best way to minimize bleeding. Participants expressed opinions based on their experience of caring for post-prostatectomy patients. In general, participants had the same opinion as illustrated in the following statement:

P1: “kita harus tahu riwayat kesehatan. Kadang pasien masuk dengan hipertensi, diabetes militus, gangguan fungsi liver dan penyakit penyerta lainnya jadi penyembuhannya lama sekali” (we have to know the health history. Sometimes patients come in with hypertension, diabetes mellitus, liver dysfunction and other comorbidities so healing takes a long time).

P3: “kalau pasien masuk dengan Hb empat belas dan tidak ada risiko perdarahan, tidak perlu cek darah” (If the patient comes in with an Hb of fourteen and there is no risk of bleeding, there is no need for a blood test).

P5: “kalau menurut pengalaman itu factor usia jadi biasanya itu perawatannya lama ee.. kita tunggu sampeee, kita bilang pasien abadi tu” (according to experience, age is a factor, so usually the treatment takes a long time, we wait until we say the patient is immortal).

Participants' perceptions about types of blood tests. Blood tests are carried out to determine the ratio of blood loss after open prostatectomy, namely requesting blood tests. Participants' perceptions on the Minimizing blood loss theme describe suspicion in finding clinical signs that will occur if prostatectomy patient care is not a priority patient for treatment. Participants' perceptions about specific signs of bleeding after open prostatectomy surgery were generally the same.

Assuring safe treatment

Participants in caring for post-prostatectomy patients explained that it was necessary to ensure safe patient treatment. It is necessary to know what information is important to collect regarding the history of medication and blood clotting disorders in patients before open prostatectomy surgery. Special considerations in providing treatment or therapy to patients with a high risk of bleeding after open prostatectomy surgery, especially regarding drugs that have a risk of increasing post-operative bleeding, such as anticoagulant drugs or blood thinning drugs. Participants stated that they did not advise patients to use medicines, herbs and traditional medicines brought from outside the hospital. The participants' perceptions were as follows:

P3: “ini biasanya focus ke keluarga, biasanya pasien mau pulang biar nanti berobat adat”. (this usually focuses on the family, usually the patient wants to go home so they can receive traditional treatment later).

P4: “golongan obat antiplatelet dan antikoagulan seperti aspirin, klopidogrel, tiklopidinwarfarin, heparin” (class of antiplatelet and anticoagulant drugs such as Aspirin, clopidogrel, ticlopidine warfarin, heparin).

P5: “biasanya kalau pasien ada minum obat Antiinflamasi Nonsteroid itu dihentikan sementara” (usually if a patient is taking non-steroidal anti-inflammatory medication, it is stopped temporarily).

Reducing complications

Participants' perceptions of efforts to reduce post-operative complications were expressed based on experience regarding what factors can increase the risk of bleeding complications in patients after open prostatectomy surgery, how to manage bleeding complications and take preventive measures to prevent bleeding after open prostatectomy. Based on the results of the interview it was found:

P3: “kita biasanya cek irigasi sesering mungkin. Kami spooling. Kalau spooling tidak bisa teratasi, kami panggil dokter jaga (We usually check irrigation as often as possible. We're spooling. If the spooling cannot be resolved, we will call the doctor on duty).

P5: “keluarga kami latih untuk membantu melakukan mobilisasi pasien kalau terasa sakit, lapor perawat” (we train families to help mobilize the patient if they feel sick, reports the nurse).

P6: “kalau traksi longgar berarti darah lagi, buli-bulinya bisa jebol, kan jahit lagi. Jadi jaga traksi” (if the traction is loose, it means more blood, the bladder could burst, so sew it again. So, keep traction).

Individualizing care

Nurses' perceptions about the care of prostatectomy patients are generally assisted by nurses, in contrast to other patients. Prostatectomy patients are of particular concern due to monitoring of irrigation and catheter spooling. If not paid attention or spooling is not done frequently, the catheter can become blocked due to loose traction on the catheter. This allows pressure to build up in the bladder. The pressure of the bladder causes the stitches to come apart, resulting in bleeding. Participants' perceptions are as follows:

P1: “kalau traksinya longgar berarti tekanannya kurang jadi kasih tau pasien supaya dijaga” (If the traction is loose, it means there is not enough pressure, so let the patient know so that it is maintained).

P4: “diruangan tidak ada panduan khusus, kami hanya berbagi pengalaman kerja saja” (There are no special guidelines in the room, we just share work experiences).

P5: “kadang pasien hanya menerima perlakuan karena takut luka terbuka” (Sometimes patients only accept treatment because they are afraid of open wounds).

Accelerating recovery

Nurses' perceptions of efforts to speed up patient recovery are carried out by providing health education regarding prostatectomy surgery, causes of bleeding, problems that may occur after prostatectomy, efforts to improve quality of life and good nutrition to speed up the wound healing process and rules for taking medication. This is done to create cooperation for the patient's recovery process.

P1: “lima hari perawatan kalau urin tidak merah, keadaan umum baik, pasien dibolehkan rawat jalan dengan membawa kateter” (five days of treatment if the urine is not red, the general condition is good, the patient is allowed to be outpatient with a catheter).

P3: “kami latih pasien dan keluarga tentang perawatan kateter dirumah” (we train patients and families about catheter care at home).

P4: “kalau ada keluhan bisa langsung kembali atau menghubungi tenaga kesehatan terdekat” (if you have a complaint, you can go straight back or contact the nearest health worker).

Discussion

The reason why patients are not referred to other hospitals to get better treatment is because Boven Digoel Regional Hospital is the only regional referral hospital, there are no other nearby hospitals in the Boven Digoel area. Referral and transportation costs are so expensive that patients are not willing to be referred, patients are forced to choose to be treated at Boven District Hospital, Digoel. Patients often say "the transportation costs are not enough", especially with the addition of the living costs of the family caring for them for an unknown period of time. Open prostatectomy is still the best and main alternative at Boven Digoel Regional Hospital. Meanwhile, several developed countries have used technology (robotic systems) to carry out this operation (Caicedo et al., 2022).

Very expensive referral fees mean that patients are forced to choose not to be referred for other surgical procedure options. Patients who come to the hospital, generally accompanied by their families, are found by staff to be seriously ill and even in a state of shock. Medical demands that went unmet were less common among patients covered by national health insurance (Kadhim, 2021). Furthermore, patients who had to lie on a sickbed were more likely to have unmet medical needs (Lee et al., 2020).

Hypertrophied prostate patients with clinical complaints will of course seek medical help. There are four gradations of clinical symptoms for BPH sufferers, namely, grade one is found to have residual urine of less than 50 ml. Second degree, the prostate is found to be more prominent with residual urine of less than 100 ml (Anan et al., 2024). The clinical complaints of patients with grade three BPH are the same as grade two with the upper border of the prostate no longer being palpable and residual urine of more than 100 ml. while at degree four, total retention has occurred. Patients with BPH degrees one and two usually do not want to undergo surgery so in (Braeckman & Denis, 2017) this situation conservative treatment is tried. Meanwhile, for third-degree BPH sufferers, treatment for BPH patients can take the form of medical treatment and surgery. Surgical techniques for BPH patients continue to develop along with developments in information technology, especially in the health sector. If the prostate is larger, it is estimated that an open prostatectomy will be performed (Costello, 2020). Open surgery or Open Prostatectomy is by opening the vesica and the prostate is nucleated from within the vesica where the mechanism for removing the gland is through an abdominal or perineal incision.

Open prostatectomy is a surgical procedure aimed at eliminating obstruction to urine flow. The advantage of this operation is that it can simultaneously remove vesical stones or diverticulectomy if they are large enough and there are diverticula (Creta et al., 2024). The disadvantage is that you have to open a large area so that the resection requires the use of a catheter for quite a long-time castellan. Surgical intervention is based on the severity of the obstruction, the presence of urinary tract infection, and physiological changes in the prostate. The patient will experience a lot of blood loss during surgery (Deininger et al., 2024). Post-prostatectomy bleeding is a complication that has attracted a little attention. Bleeding generally complicates surgery, so it requires quick and precise action. Postoperative bleeding, if not treated properly, can cause hemorrhagic shock and affect the patient's prognosis. Evaluate bleeding clinically, especially for signs and symptoms of blood vessel injury such as increased systolic blood pressure and/or tachycardia occurring more than 100 times per minute. Laboratory examination found a decrease in hemoglobin of more than 2 gr/dl. Patients who experience bleeding after prostatectomy surgery may take longer to treat and recover, this is made worse by damage to blood vessels and surrounding tissue.

The important role of post-operative nurses in caring for post-open prostatectomy patients has an impact on preventing post-operative complications (Yang et al., 2022). Based on interviews with surgical room nurses at Boven Digoel Regional Hospital, there is no measuring tool used to screen the risk of bleeding after prostatectomy surgery. Bleeding after open prostatectomy surgery has the potential to cause shock and become life-threatening if it is not caught early (Merhe et al., 2020). Patients bleeding post open prostatectomy require blood transfusions, but health workers still often experience problems in finding donors. Patients with bleeding complications require quite long treatment days and of course will experience disruption to their daily activity patterns, which requires emergency intervention. Significant bleeding after prostate surgery is still a potentially life-threatening complication (Schneider et al., 2021). The surgical complications that are feared during open prostatectomy surgery are bleeding and obstruction of urine flow. Patients require 85% blood transfusion when resection exceeds 80% of the prostate.

Conclusion

The development of this instrument is very beneficial for every medical officer at the research location. Apart from that, the results of this research can also be used as material to develop a more complex study regarding the risk of bleeding in post-open prostatectomy patients.

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