

Nursing Care in Polycythemia Vera: A Review Article

Ayse Ozkaraman

Eskişehir Osmangazi University, Faculty of Health Sciences, Department of Nursing, Eskişehir, Turkey, E-mail:
aozaydin26@hotmail.com

Abstract

Introduction: Polycythemia vera (PV) is a chronic myeloproliferative neoplasm, which is characterised with the clonal proliferation of the erythroid, myeloid and megakaryocytic series. The foundation is prepared for the formation of blood clots in all of the tissues and organs, together with an increase in the viscosity and volume of blood in particular, and many systems such as the central nervous system and the cardiovascular and gastrointestinal systems are affected. The symptoms in polycythemia patients are generally asymptomatic, while generally being headaches due to hyper-viscosity and hypervolemia, as well as nose bleeds, tinnitus, vertigo, vision disorders, dyspnoea, angina, a florid appearance and a burning sensation in the hands and feet. Additionally, symptoms of petechia, purpura, ecchymosis, splenomegaly, hepatomegaly, peptic ulcers and hyperuricaemia are seen. Cardiovascular risk factors (hypertension, hypercholesterolemia, diabetes, smoking) increase the risk of complications in advanced ages in particular. According to the information relayed from Barbui and Finazzi, while thrombotic incidents develop in 38.4% (n=1638) of PV patients, 41% of deaths in PV develop as a result of cardiovascular incidents, 13% as a result of PV turning into a haematological illness such as acute leukaemia and 4% as a result of major bleeding.

While 75-100 mg/day aspirin and phlebotomy is implemented on patients in the low risk group (unless there are contraindications) in order to prevent thrombosis, high risk patients, those who are unable to tolerate phlebotomy and those in progressive circumstances are given cyto-reduction treatment. Stomach disorders and bleeding may develop in patients due to the use of aspirin, while iron deficiency, exhaustion, symptoms of confusion, nausea-vomiting, difficulty in reaching the peripheral vein, bruising in the needle puncture site following the procedure, hematoma, arm pain and more rarely, anaemia and heart disease may develop in connection with phlebotomy. The hydroxyurea used in the treatment of the patients in the medium-high risk group is generally well tolerated by patients, but changes in the skin (loss of hair, hyperpigmentation, erythema, atrophy on the skin, changes in the nails, leg ulcerations) and secondary malignancies do emerge depending on the dose. The hydroxyurea used in the treatment of the patients in the medium-high risk group is generally well tolerated by patients, but changes in the skin (loss of hair, hyperpigmentation, erythema,

atrophy on the skin, changes in the nails, leg ulcerations) and secondary malignancies do emerge depending on the dose. IFN- α is mostly recommended in high risk patients below the age of 40, women in the reproductive age group. **Objective:** The purpose of this article is to assess the symptoms in connection with PV and the treatment and the difficulties which have been experienced, in accordance with the System for the Categorisation of Nursing Diagnoses of the North American Nursing Diagnosis Association (NANDA) and present possible nursing diagnoses and the management of symptoms according to these diagnoses.

Methods: it's possible to extend the standard of lifetime of patients by managing the symptoms. Randomized controlled studies, which examine the impact of approaches in reference to symptom management in PV, are scanned with search terms PV, care, and nursing in PubMed databases, CINAHL, Ebsco Academic Search Complete, Scopus and Scholar Google databases, but it had been impossible to seek out any randomised controlled studies on this subject. Therefore, the approaches directed at the nursing diagnoses which are determined within the article, are supported the papers from peer-reviewed publications, books, guidelines and therefore the recommendations made by medical professionals. Nurses should obtain the detailed history of PV patients; perform a physical examination to get a diagnosis and collect the info associated with the diagnosis tests. Within the patient history, the prevailing illnesses, the thrombotic incidents which are suffered (cerebral ischaemic attacks, myocardial infarctions, phlebothrombosis, etc.), the cardiovascular risk factors (hypertension, DM, smoking, age), the medication used, previous surgical operations which increase the danger of thromboembolism, pregnancy and other malignant situations like cancer should be questioned. The potential subjective (local pains, joint pains, headaches, vertigo, numbness within the extremities, apathy, chest pains, increased heart beat) and objective (paresthesia, clouding of consciousness, thrombus, emboli, angina) findings associated with thromboembolism and therefore the risk of deep vein thrombosis (DVT) got to be evaluated in polycythemia patients. The "Autar DVT Risk Diagnosis Scale", the utilization of which is suitable for polycythemia patients, are often utilized in order to work out the danger of DVT. The danger of bleeding thanks to the utilization of high doses of aspirin and/or acquired Willebrand Disease, increases in PV. so as for bleeding to be ready to be

detected early and therefore the necessary precautions to be taken during a timely manner in clinics, the danger of bleeding and bleeding should be evaluated supported the NCICTCAE version 4.03 classification criteria

Results:

The presence of cardiovascular risk factors together with age increases the probability of complications developing in patients suffering from polycythemia. Therefore, consultancy services provided by nurses on the subjects of the planning of training on behaviour which will improve health, the structuring of diet and exercise programmes and the abandoning of habits which are damaging to health, such as smoking and alcohol, will both be able to prevent the loss of capabilities related to complications and reduce mortality rates. The important nursing diagnosis related with PV are altered gas exchange, altered tissue perfusion, fatigue, high risk of injury, high risk of infection, deterioration of comfort (itching), high risk of impaired skin integrity and pain. It was not possible to find any randomized controlled studies on this subject. It is recommended that these diagnosis and differences are taken into account in nursing interventions.

Conclusion: Nurses need to use a patient centred approach in the administration of PV, in order to assess the patients, plan care and achieve the self-management of the disease with the patient, who has been empowered with knowledge.