

Care plan for a patient suffering from gout



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The subsequent paper will sketch the focal point of care of the patient in the specified case study. The patient came to the emergency department complaining of severe pain in her right toe which looked inflamed and red upon assessment. She had trouble walking and could not put her weight on the foot; throbbing pulsation was felt on palpating the toe which caused the patient to shrink back in pain. Blood pressure, uric acid levels and temperature were more than normal range. The patient was noticeably concerned and distraught about the care of her three year old son as her spouse was away and the grandparents were also not accessible for baby-sitting. The medical identification of her state was gout, which is characterised by extreme pain in the joints almost certainly in the big toe; nevertheless the pain can be felt in other joints as well such as thumbs, knees, elbows, fingers or ankles (Reach, 2011). Hence, this case study will delineate the causes, symptoms and treatment of gout as well the focal point of care. It will also be elaborating how the patient can be assisted with the care of her son.

Gout is caused by the disproportionate deposition of uric acid crystals in joints. The symptoms of gout are usually excruciating pain especially in the big toe or even in the knees or ankles. The affected joint is gives a feeling that it is very hot and is swollen and inflamed. The concerned joint is also very tender and the patient cannot bear to have it touched due to the excessive tenderness and pain. The area around the joint becomes very red (erythematic) or purple in colour due to the inflammation. In extreme cases of gout the patient may feel alternating symptoms of chills and fever; with chronic attack fleshy, small growths termed as " tophi" may be observed.

Tophi are accretions of uric acid crystals in the joints. As the disease progresses the attacks become more and more frequent, are more intense and may involve more joints of the body (Reach, 2011).

Hyperuricemia is recognized as a serum uric acid level more than 6.8 mg/dL. It is higher amongst men (5.1 ± 1.0 mg/dL) as in contrast to women to women (4.0 ± 1.0 mg/dL). The crystal precipitates when the level of solubility is surpassed in the plasma. The uric acid crystals are phagocytosed by the cells of the immune system- neutrophils which in turn release powerful inflammatory mediators such as interleukin 1, 6 and tumour necrosis factor α . These mediators released by the immune cells are responsible for the systemic effects such as fever and leukocytosis witnessed during an attack of gout. These factors were responsible for the systemic and physical symptoms of the patient (Chaichian, Chohan & Becker, 2014).

Gout is a form of arthritis and some tests determine that the patient has indeed developed gout. As stated above the patient displayed the outward symptoms of the disease. She also had elevated temperature and inflammation which indicated that she may have developed an infection. A serum uric acid test can determine the level of uric acid in the blood thereby confirming the diagnosis of gout. However, elevated serum uric acid levels are not conclusive diagnostic test for the establishment of the diagnosis as often uric acid levels may be raised due to other medical conditions as well. Sometimes patients with gout do not exhibit elevated levels of uric acid in their blood and healthy people may exhibit those (Buck & Delany, 2014). In the presented case study the patient exhibited elevated levels of serum uric acid.

Another diagnostic test which can be carried out to confirm the identification of the disease is the testing of synovial fluid for the correct crystals. This will definitively establish which crystals have been deposited in the joints as accumulation of other crystals may also cause similar symptoms as those presented by gout. The samples are microscopically examined and presence of uric acid crystals confirms the diagnosis of gout (Buck & Delany, 2014; Janssens et al, 2010). X rays may be used to rule other joint related diseases whereas now-a-days ultrasound scans are being used to check the joints for deposits. However, the presence of crystals is still not a definitive diagnosis (Thiele, 2011). The following checklist can confirm whether the patient has gout or not: more than a single attack with intense pain, swelling and inflammation, the patient experiences elevated levels of inflammation in 24 hours after the beginning of the symptoms, the symptoms can be observed in one joint at a single time, the big toe has been affected, raised uric acid levels and there is no substantiation of bacterial infection in the affected joint. Thus, it is evident from the above that the patient was suffering from an attack of gout (Debrueil et al, 2013).

In the focus of care first step in the management of gout is the mitigation of symptoms. As a first line therapy it is advisable to use non steroidal anti inflammatory drugs for acute attacks of gout. In the case study ibuprofen was utilised to manage the painful symptoms of the patient. The precise mechanism of action of ibuprofen is unidentified. It inhibits cyclooxygenase non-selectively which is an enzyme participating in synthesis of prostaglandin through the arachidonic acid pathway. Its pharmacological impacts are supposed to be owing to inhibitory action of cyclooxygenase-2

(COX-2) which declines the production of prostaglandins associated in manifesting the symptoms of pain, inflammation, fever and swelling. Antipyretic impact of the drug is owing to effect on the hypothalamus, ensuing in an augmented peripheral flow of blood, vasodilatation, and consequent dissipation of heat (Wilkinson et al, 2012)

Maintaining the optimum uric acid levels is the key to successful management of gout. Drugs which are able to do so may also reverse the deposition of the uric acid crystals. The medicine which had been prescribed to the patient, allopurinol is one such agent. The drug lowers uric acid crystal deposition by inhibiting the formation of uric acid crystals. It acts as a competitive of xanthine oxidase which is the final enzyme in the purine metabolism biological pathway for the production of uric acid (Faruque et al, 2013). The dosages for allopurinol may start at 300 mg/d and may be titrated up to 800mg/d to bring the raised uric acid levels to the normal range of 6mg/dl.

As long as the symptoms persist the swollen joint should be elevated above the chest level to reduce the swelling and a walking stick must be used to avoid putting weight on the joint. Appropriate changes in the diet plan of the patient are a long term management strategy which can be used to minimize the effects of the disease (Spencer, Carr & Doherty, 2012). Foods rich in purines- seafood, meat, alcohol (Beer), oatmeal etc should be avoided (Zhang et al, 2012). Hypertension is a risk factor associated with increased chances of developing gout which the patient exhibited (BP 140/90) which should also be managed successfully for a balanced controlling of the disease (McAdams & DeMarco, Maynard, Baer, & Coresh, 2012).

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Another important area which needs to be addressed is the distress of the patient regarding the care and supervision of her three year old toddler while she would be away in hospital. Managing toddlers can be difficult in such situations as they are scared if separated from their caregivers/parents and do not understand the gravity of the situation. These problems can be exacerbated if the parent and child relationship are not maintained during hospitalisation. In fact, research literature suggests that existing problems can be compounded if regular contact between the parent and child is not maintained while the parent is hospitalised (Coyne et al, 2011). Staffs were stressed as an essential basis of support for patients and their families, and could engage in a more positive role in assisting and endorsing family contact despite the fact that a parent is in hospital. To provide support to people in such situations the government of Australia provides a range of support services through the Raising Children Network (Australia) Limited.

Coyne et al (2013) found that both staff and parents had positive views of family-centred care practices. Parents' insight of their experience was more optimistic than staff insights of their deliverance of family-centred care in medical care settings. While the constructive practice by both healthcare providers and patients is a significant finding, causes for disparity, particularly in supporting hospitalised parents, needs further study.

Therefore, the above work charts the focus of care of a gout patient. First the work outlines the definition of the disease, its various symptoms and the diagnostic tests used to identify the disease conclusively. The important facet of this essay is the focus of care and the sequence it follows. The first line of drugs which were used was ibuprofen and allopurinol for pain and <https://assignbuster.com/care-plan-for-a-patient-suffering-from-gout/>

fever management and hyperurecemia reduction subsequently. Another important strategy is the management of risk factors involved in this case study, specifically hypertension and diet. The patient's concern for her child needed to be addressed as the stress created by the worry and anxiety can impede the process of recovery. To solve this problem the staff can collaborate with the social care services provided by the government of Australia through various services. This will not only provide safe child care but also family centred care positively for both the patient and the medical staff members.

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