Delay in Cancer Diagnosis: Causes and Possible Solutions

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Cancer is the leading cause of death in developed and developing countries. Cancer mortality is expected to rise to an estimated 13.1 million deaths annually by 2030.[1] However, certain types of cancer have a high chance of cure if they are detected at an early stage and adequately treated.[2]

The delays in cancer diagnosis may occur throughout the diagnostic pathway: patient, primary care, and secondary care. Patient delays may occur when the patient fails to recognise and act on suspicious cancer symptoms.[3] Poor public awareness for early symptoms of cancer is considered to be the predominant reason for delayed presentation, particularly if symptoms are atypical in nature.[4] A recent community-based study measuring public awareness of cancer symptoms in Oman showed that the majority of Omanis were unable to identify common cancer symptoms. These included unexplained bleeding, difficulty swallowing, change in bowel or bladder habits, sores that did not heal, unexplained pain, cough or hoarseness, unexplained lump or swelling, change in the appearance of a mole, and unexplained weight loss. The study also showed that the most reported barriers to seeking timely medical help included being too busy to make an appointment, concern about what the doctor might find, and difficulty talking to the doctor. The study concluded that urgent strategies are needed to increase public awareness in Oman for cancer symptoms.[5]

The Oman Cancer Association (OCA) is a non-governmental organization working to increase public awareness of cancers using community-based programs. The association works to educate the community about early symptoms of cancer, promote self-examination for cancer (e.g., breast cancer) and promote proper, timely intervention. However, still more public educational activities are needed, particularly in the rural communities.

Although the school science curriculum in Oman covers many concepts related to health education, none of them are related to awareness of risk factors for cancer or cancer symptoms.[6] Thus, curriculum-based health education regarding the prevention of cancer and motivation of children to incorporate healthy lifestyle practices into their daily lives are needed. Using media such as TV broadcasts, life lectures, seminars, and social media could improve cancer awareness among adolescents.

Primary care delays may occur in the recognition, investigation, and referral for symptoms suspicious of cancer.[3] Although primary care is the first point of contact for patients using national health services in many countries around the world, delay in cancer diagnosis remains as an ongoing problem at this level. Primary care physicians are expected to identify patients with possible cancer at an early stage, but the diagnosis of cancer is relatively uncommon for individual primary care physician as more than 80% of patients present with non-specific symptoms.[7] Indeed, the main concern of a primary care physician is to differentiate the minority of patients who need urgent attention from the majority of patients who are likely to have self-limiting conditions.[8]

Primary health care services in Oman, similar to the most Arabic countries, are provided by a network of local health centres. However, patients can access medical services at different places, including private clinics and hospitals. Also, some patients may travel abroad for investigations, treatments, medical check-ups, and to obtain a second opinion.[9] As a

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result, there is a serious lack of continuity of care. Continuity of care with a particular physician has been found to increase early detection of cancer and the likelihood of cancer testing.[10] Thus, support is needed to increase continuity of care through promoting appointment systems and limited access to a specific primary care physician for non-urgent conditions.

Although the Ministry of Health in Oman developed a guideline for early detection and screening of breast cancer in 2010, there is also a need for guidelines to identify alarming symptoms for other types of cancer and to refer suspected patients to a specialist within a specific period.[11] A policy has been adopted in the UK to refer patients who are suspected of having cancer to a specialist within two weeks.[12] Therefore, availability of guidelines for primary care physicians in Oman to identify suspected symptoms of cancer and refer them early to specialists are important to shorten the appointment waiting time and improve cancer prognosis.

In the hospital, delays can be due to the doctors' delay in making a diagnosis and starting treatment. A doctors' delay in making a diagnosis is defined as the time taken from primary care referral to diagnosis. Delay of treatment is defined as the interval between diagnosis and the start of treatment.[13] Considerable diagnostic delay might occur if several invasive procedures are needed to confirm the diagnosis and the suitability for surgical treatment.[14]

In summary, a delay in cancer diagnosis can occur at various levels. The patient may fail to recognise suspicious cancer symptoms or act on them. The primary care physician may not recognise patients with suspicious cancer symptoms and investigate them appropriately or refer on time. Patients with suspicious cancer in secondary care may not be seen on time, or they may be referred to the wrong specialty. Thus, using media to broadcast the message of awareness in the community should increase public knowledge of cancer symptoms and the importance of seeking timely medical attention. Regularly updating primary care physicians about alarming symptoms of cancer, developing guidelines to identify these symptoms, promoting continuity of care, and enabling access to specialist expertise through prompt referrals should all help to prevent delays in cancer diagnosis.

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