Our first experience with angiosarcoma of the heart: a case report

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Introduction: By definition, angiosarcoma is an epithelial cell tumor that forms in blood and lymphatic vessels. The pre-selection sites of angiosarcoma are the back of the head and neck, and the breast. Very rarely, angiosarcoma can be found in the liver and heart.[1] Precisely because of its rarity, we wanted to show you the case of a patient with cardiac angiosarcoma at the age of 43. One can be found in the right atrium and ventricle, and the left atrium and ventricle, which are difficult to access for surgical treatment due to the position of the heart. This malignant tumor was located in the patient's left atrium, which made the surgical treatment extremely physically demanding.[2] Such tumor usually causes non-specific symptoms that often point to heart failure or arrhythmia. It very often metastasizes to the lymph nodes, liver, lungs and bones. Diagnostic tests that are performed for the purpose of diagnosing angiosarcoma of the heart are thoracic ultrasound of the heart, transesophageal ultrasound of the heart, computed tomography, coronary angiography, and positron emission tomography. After the diagnosis of angiosarcoma is made, the choices of treatment methods are chemotherapy, radiation and surgery depending on the size and localization.[3]

Case report: 43-years-old patient with irrelevant medical history has been transported from Varaždin General Hospital to University Hospital Centre "Sestre milosrdnice" because of arrhythmias. The patient stayed in the ward for 22 days in an isolation room due to vancomycin-resistant Enterococcus isolated in a rectal swab. During the hospitalization, a complete work-up was done to establish a diagnosis and start treatment. Also, during hospitalization, a complication occurred, the patient had an acute cerebral infarction due to tumor embolization. Mechanical thrombectomy was performed and the sample was sent for pathohistological analysis. The result of the pathohistological analysis is a malignant mesenchymal tumor - angiosarcoma. After the diagnosis, the patient is referred for cardiac surgery and presented for oncological treatment. The case we presented is specific because it is an angiosarcoma of the heart, which is a very rare heart tumor, so the experience of operating centers in the treatment of this malignant tumor is minimal. Angiosarcoma of heart is so rare that the world's largest centers, such as cardiac surgery centers in the USA, had only 25 such patients in their database in 22 years. The survival of patients with primary angiosarcoma of the heart is significantly shorter than in those with angiosarcoma of another origin. The main cause of shorter survival is late diagnosis and the possibility that there are already distant metastases, most often in the lungs, brain, or bones. According to some studies, survival is longer in patients with sarcoma located in the left atrium, which does not have necrosis and, of course, without signs of metastatic disease. Such a rare malignant heart tumor presents a challenge for the entire multidisciplinary team.[1-3]

Conclusion: Nurses specific knowledge and skills are key in adequate care for the patient. Nursing assignments in the process of health care is educating the patient and their family. With education, psychological support and help must be provided. The process of health care must result in maximum preserving the quality of life, raising self-confidence and optimism with independence of the patient. To achieve that, nurse have to undertake a great deal of measures and interventions during health care.

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LITERATURE

1. Džombeta T, Milković Periša M, Leniček T, Tomas D, Krušlin B. Angiosarkom desne pretklijetke kao uzrok tamponade srca i letalnog ishoda u tridesettrogodišnje bolesnice - prikaz nalaza obdukcije. Liječ Vjesn. 2018;140:163-166. https://doi.org/10.26800/LV-140-5-6-21
2. Butany J, Nair V, Naseemuddin A, Nair GM, Catton C, Yau T. Cardiac tumours: diagnosis and management. Lancet Oncol. 2005 Apr;6(4):219-28. https://doi.org/10.1016/S1470-2045(05)70093-0
3. Burke AP, Cowan D, Virmani R. Primary sarcomas of the heart. Cancer. 1992 Jan 15;69(2):387-95. https://doi.org/10.1002/1097-0142(19920115)69:2<387::AID-CNCR2820690219>3.0.CO;2-N