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## 35 - DERMATOMYOSITIS: A RARE PARANEOPLASTIC SYNDROME IN BREAST CANCER

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Breast cancer, the most frequent malignancy diagnosed in women, can feature uncommon presentations such as paraneoplastic syndrome, including dermatomyositis (DM). DM is a rare idiopathic inflammatory myopathy that affects adults and children, predominantly women. Many epidemiological studies demonstrated that adults with DM have an increased risk for malignancy. Early evidence came from case reports, but this link was later confirmed in case-control and population-based studies. According to recent data, the association between DM and malignancy ranges from 7 to 30% of cases. Therefore, when facing a diagnosis of DM, it is mandatory to perform a comprehensive oncological screening on the affected patient. The malignancies associated with DM comprise numerous tumors. In general, the DM delivers progressive symmetrical proximal muscle weakness and typical skin changes. The literature indicates that oncological treatment promotes amelioration of the rheumatologic condition in breast cancer cases. Although, cancer treatment alone is insufficient to adequately control the cutaneous and myopathic manifestations of DM, which can significantly affect the quality of life. A multidisciplinary approach, including close collaboration with rheumatologists and dermatologists, is crucial in diagnosing and managing oncology patients with DM. Unfortunately, till date, there is no consensus or protocols to guide the diagnosis, treatment, and follow-up of these patients. Global scientific knowledge of the topic still requires additional data to improve medical care for these patients. A 51-year-old woman, formerly healthy, progressively presented with a diffuse erythematous rash, Gottron's papules, V sign, Shawl sign, Holster sign, and mechanic's hands, in addition to proximal muscle weakness. After prompt investigation, the patient was diagnosed with DM. Hence, the patient underwent comprehensive neoplastic screening that revealed bilateral breast malignancy. Invasive ductal carcinoma was detected in the right breast and HER2 overexpressing invasive ductal carcinoma in the left breast. Staging indicated no metastases, and the patient was classified as cT2N2M0 in the left breast (stage IIIA) and cT2N0M0 in the right breast (stage IIA). Thus, the treatment plan began with steroids, followed by neoadjuvant chemotherapy, and, at last, the patient underwent a bilateral mastectomy. Neoadjuvant chemotherapy consisted of a scheme with doxorubicin and cyclophosphamide. The surgical therapy plan was mastectomy with axillary dissection for the left breast and mastectomy with selective lymphadenectomy for the right breast. The medical team observed improvement in signs and symptoms correlated to DM throughout treatment. During follow-up, there was no evidence of reactivation of the rheumatological condition.