

Case Report

GASTRIC ADENICARCINOMA IN DERMATOMYOSITIS CASE: A BRIEF ASSESSMENT

Ali Atay¹, Fatih Yılmaz² and *Süleyman Ahbab¹

¹Haseki Training and Research Hospital, Istanbul, Turkey

²Akdeniz University, Medical Faculty, Antalya, Turkey

*Author for Correspondence

ABSTRACT

Dermatomyositis is an autoimmune and degenerative disease which characterized by lymphocyte infiltration of skeletal muscle and skin. Proximal and symmetric muscle weakness and elevated serum creatinine kinase levels are diagnostic findings of this disease. In addition, ocular, cardiac, pulmonary and gastrointestinal involvement can be seen. Dermatomyositis includes specific skin lesions such as heliotrope rash and gottron papule, which differs from polymyositis. Co-existence with rheumatoid arthritis, lupus erithematosus, scleroderma and Sjögren's syndrome is reported. Frequency of secondary visceral malignancy is increased in individuals with dermatomyositis, especially ovarian and gastric malignancies. It was emphasized the co-existence of developing gastric adenocancer and dermatomyositis, by this case report.

Keywords: Dermatomyositis, Gastric Adenocarcinoma

INTRODUCTION

Dermatomyositis (DM) is an idiopathic inflammatory disease with characteristic cutaneous findings which was identified by Bohan and Peter in 1975. DM has an unknown etiology. Dermatomyositis criteria are consisted up to establish the diagnose (Bohan,1975). These include progressive proximal symmetrical weakness, elevated muscle enzyme levels, abnormal findings on electromyogram, and abnormal findings from muscle biopsy, (table 1). Primary idiopathic and amyotrophic myositis are main clinical types of DM. Dermatomyositis is also known as amyopathic dermatomyositis, which diagnosed in patients with typical cutaneous disease and muscle involvement. Rare cutaneous manifestations include vesiculobullous, erosive lesions, and an exfoliative erythroderma. Biopsy samples from patients reveal an interface dermatitis similar to that of biopsy samples of heliotropic rash, gottron papules or scalp lesions. Cutaneous manifestations are common in patients with an associated.

CASES

Seventy four years old female patient who applied to the hospital with complaints such as fatigue, muscle weakness of extremities and weight loss for one month. Physical examination was displayed a redness on the face and heliotropic rash on the eyelid. Upper and lower extremity muscle power 3 / 5 at strength. Arterial blood pressure was 120/75 mmHg, pulse rate 76 / min, respectively. In routine blood tests; leukocyte count was 10.390/mm³, hemoglobin 11.5 gr/dl, hematocrit 35.4 %, thrombocyte 321.000/mm³, erythrocyte sedimentation rate 75 mm/hour, c-reactive protein 35.3mg/l (0-5), urea 16mg/dl (8-34), creatinine 0.47mg/dl, total protein 5.79gr/dl, alanine amino transferase (ALT) 124 U/l (0-44), aspartate amino transferase (AST) 60 U/l (0-36), lactate dehydrogenase (LDH) 500 U/l (0-186) and alkaline phosphatase (ALP) 63 U/l (0-94). Creatinine phosphokinase (CPK) value was 2679 U/l (0-294) and excluded other causes as intramuscular injection and trauma. Antinuclear antibody, rheumatoid factor and anti-liver kidney mitochondrial antibody (LKM-1) were negative. Hepatitis markers, Gruber-Widal test, Wright agglutination were all negative. Abdominal ultrasound-graphic examination was revealed naturel findings. In patients with upper and lower extremities weakness, facial redness and heliotropic rashes their eyelids, repeated creatinine phosphokinase (CPK) values to persist in the elevation and high values SGOT and SGPT, in the forefront because of dermatomyositis was considered. EMG also was made to monitored electrophysiological changes compatible with myositis and without need to muscle

Case Report

biopsy having been diagnosed dermatomyositis. Clinical question in the morning stiffness, arthritis, arthralgia, oral thrush, such as photosensitivity in patients with clinical features not.

The advanced age is taken into consideration along with weight loss, iron deficiency anemia and erythrocyte sedimentation rate is high because of the malignancies were thought at the forefront. Postero-anterior chest X-ray and tumor markers were normal. There was no peripheral lymphadenopathies. Gynecological examination was no pathological features. The upper gastrointestinal endoscopy made for gastrointestinal malignancies in the localization of gastric antrum 3 cm-sized polypoid mass lesions was monitored and retrieved from lesion biopsies. Biopsy results were reported as gastric adenocarcinoma. Than gastrectomy was applied with no complication, in the surgery department.

Table 1: Bohan and Peter's Criteria for Dermatomyositis (DM)

1.Symmetrical weakness (usually limb-girdle muscles)
2.Muscle biopsy evidence of myositis (degeneration of myofibers, infiltration of interstitial mononuclear cells)
3.Elevation of serum levels of muscle associated enzymes
4.Electromyographic findings of myopathy (low amplitude polyphasic motor potentials, fibrillation potentials)
5.Characteristic rashes of dermatomyositis
<i>*Definite DM; Charasteristic rash + other 3 criteria</i>

DISCUSSION

The incidence of dermatomyositis is 1 – 10 /1.000.000 in adults, it is 1 - 3.2 /1.000.000 in children. The autoimmune mechanism of disease cannot be fully understood. The case presentations about the connection between dermatomyositis and neoplastic diseases are present (Przybylski, 2008). In addition to many malignancies such as gastric adenocarcinoma, adenocarcinoma of the prostate, small cell lung carcinoma, adenocarcinoma of the esophagus, ovarian carcinoma(cancer) in literature, there are case statements about dermatomyositis and polymyositis (Madan,2009). The similarity of immune reaction occurred against antigens within muscle cells and neoplastic cells or some paraneoplastic syndromes are the underlying mechanism. Peptide hormones, growth factors, interleukins, cytokines, biologically active proteins and polypeptides produced by tumors in paraneoplastic syndromes are the clinical manifestations which occur depending upon prostaglandins and make normal the levels of hormone through the removal of tumor tissue. In addition to enabling curative treatment being first medical sign of malignancy, it may cause the delay of treatment imitating metastasis and cancer complications which are treatable. Widespread cachectic myopathy, proximal dermatomyositis (DM), polymyositis (PM) are non-metastatic muscle diseases which may be related to malignancy. Many studies have shown increased malignancy incidence in patients with DM (Airio,1995). This risk is higher in patients with DM and the diagnosis is generally made within first three years. Patients above 65 years of age are at high risk. Especially ovarian cancer is more dominant in women and then lung, GIS, breast, testis and less frequently seen lymphoma, leukemia and melanoma are among malignancies related to DM (Maoz,1998). The pathology of relation in between myositis and cancer is not fully known. A meta-analysis found a strong relationship between myositis and cancer. This rate for DM was detected higher in comparison to PM (respectively 4.4% and 2.1%) (Zantos,1994).The clinical features of cancer- related DM/PM are similar with idiopathic myositis. Proximal muscle weakness is the first presenting symptom. Inflammatory arthritis is developed in 50 percent of patients. Cancer- related DM/PM are generally resistant to corticosteroid and cytotoxic treatments. The treatment of primary malignancy generally can result in the regression of DM symptoms. Our patient also had a proximal muscle weakness at the time of first application. The decrease in the muscle weakness of the patient was occurred after gastrectomy.

The relationship with malignancy is shown in approximately 10 percent of cases with dermatomyositis. In the cases of polymyositis and ANA positive, the relationship with malignancy is very rare. If a malign disease exists at base, it will emerge in two or three years following myositis. Similarly, ANA negative

Case Report

was also determined in our case. Hematuria which is not frequently observed in dermatomyositis-polymyositis, must remind malignancy in medical signs like iron deficiency. Malignancy is observed more frequently in patients above 50 years of age who have not autoantibody and very high level of muscle enzymes, have severe and treatment-resistant skin lesions and have showed erythroderma and vasculitis findings. Interestingly muscle enzymes have increased substantially in our case. Myositis clinic has recovered through the treatment of primary malignancy in myositis cases related with malignancy (Madan,2009). Similarly, dermatomyositis-polymyositis has clearly recovered in our case after gastrectomy. Consequently our case was founded worth presenting because of the fact that its relationship with dermatomyositis-polymyositis and malignancy is rare. Especially an advanced research will be appropriate for the cases that contain findings making think about ANA negative, above 50 years of age and attendantly malignancy.

REFERENCES

- Airio A, Pukkala E and Isomaki H (1995).** Elevated cancer incidence in patients with dermatomyositis: a population based study. *The Journal of Rheumatology* **22** 1300–1303.
- Bohan A and Peter JB (1975).** Polymyositis and dermatomyositis, second of two parts. *The New England Journal of Medicine* **292**(8) 403-7.
- Madan V, Chinoy H, Griffiths CE and Cooper RG (2009).** Defining cancer risk in dermatomyositis. *Clinical and Experimental Dermatology* **34**(4) 451-5.
- Maoz CR, Langevitz P and Livneh A et al., (1998).** High incidence of malignancies in patients with dermatomyositis and polymyositis: an 11-year analysis. *Seminars in Arthritis and Rheumatism* **27**(5) 319-24.
- Przybylski G, Jarzemska A and Czerniak J et al., (2008).** A case report of a patient with dermatomyositis as a prodromal sign of lung cancer. *Polskie archiwum medycyny wewnetrznej* **118**(3) 143-7.
- Zantos D, Zhang Y and Felson D (1994).** The overall and temporal association of cancer with polymyositis and dermatomyositis. *The Journal of Rheumatology* **21**(10) 1855-9.