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CASE REPORTS

EPIDERMOLYSIS BULLOSA ACQUISITA
(Report of three cases)

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Three Libyan patients with epidermolysis bullosa acquisita (EBA) had adult onset of the disease with tense vesiculo-bullous lesions on the sites of pressure and trauma, healing with atrophic scars and milia formation. None of the patients had family history of epidermolysis bullosa. The diagnosis was based on clinical and histopathological features showing subepidermal bullae, and exclusion of other vesiculo-bullous diseases. In addition, the diagnosis in case 1 was confirmed by direct immunofluorescence studies showing linear deposits of IgG and C3 at the basement membrane zone. Case 2 was already having systemic lupus erythematosus for the last 3 years when she developed EBA. Case 3 was having anemia, leucopenia, raised ESR and gamma globulin. Thus, association of SLE was suspected in this case too although the diagnosis could not be confirmed.

Key words : Epidermolysis bullosa acquisita (EBA), Systemic lupus erythematosus (SLE),

Epidermolysis bullosa acquisita (EBA) is uncommon. It was first described by Fox[1] in 1897 but the name was given by Kablitz[2] in 1904. Its clinical features are similar to the inherited dermolytic epidermolysis bullosa. Roenigk et al[3] have suggested four diagnostic criteria, (1) onset of the disease beyond the infancy period, (2) absence of family history of the disease, (3) clinical lesions comprising of bullae produced by trauma and healing with atrophic scars and milia, nail dystrophy and oral mucous membrane lesions, and (4) exclusion of other bullous diseases and lichen planus, erythema multiforme, lupus erythematosus and bullous drug eruption. We are reporting three cases of this disease.

Case Reports

Case 1

A 17-year-old male patient had mildly itchy bullous lesions, appearing initially on the neck, axillae and lip, and later on the extensor aspect of the extremities, mainly on the pressure sites of hands and feet. He gave history of taking aspirin before the onset of the lesions. Initially, it was suspected to be a drug rash and he was given systemic corticosteroids for one week without any significant improvement. Routine investigations including complete blood counts, ESR, urine, stools, blood urea, liver function tests, rheumatoid factor, LE cell phenomenon, serum electrophoresis for proteins and X-ray chest did not reveal any abnormality. Biopsy from a fresh lesion on the hand showed subepidermal bulla with some infiltration of polymorphs and eosinophils, suggestive of dermatitis herpetiformis. The patient was given dapsone upto 300 mg/day with gluten-free diet for a couple of weeks with only a slight improvement. Hence this was supplemented with azathioprine 150 mg/day. Still the remission was not complete and a few new lesions were appearing now and then. The lesions were healing with residual scars and milia. There was no family history of epidermolysis bullosa. The

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diagnosis of epidermolysis bullosa acquisita was suspected and the patient was sent to Vienna for the direct immunofluorescence studies which revealed linear fluorescence for IgG and C3 in the basement membrane zone. The patient was still kept on dapsone 200 mg/day and azathioprine 150 mg/day for 2 months with a significant improvement. The dose of dapsone was gradually tapered and azathioprine was stopped after 6 months. He was then kept on 100 mg of dapsone alone. There was no complete remission, he used to get one or two lesions occasionally. He came for regular follow-up for 2 years.

Case 2

A Libyan girl aged 18 years was an established case of systemic lupus erythematosus for the last 3 years. She initially had an erythematous maculo-papular rash on the face and outer aspect of arms with severe arthralgia and fever and was controlled with systemic corticosteroids, but she had discontinued the treatment 6 months ago. Three months back, she started developing tense bullous lesions on the extremities, more on the pressure sites, healing with atrophy and milia. Reinvestigations revealed leucopenia (WBC 3,600/cu mm), anemia (Hemoglobin 9 gm% and RBC 3.2 million/cu mm), and high ESR (60 mm). Rheumatoid factor and LE cell phenomenon were also positive; serum proteins were 6.4 gm/dL, with albumin 39.1%, alpha-1 globulin 2.8 %, alpha-2 globulin 9.5 %, beta globulin 9.1 % and gamma globulin 39.5 %. Biopsy from a lesion on a foot showed subepidermal bulla with a mild inflammatory infiltrate. Immunofluorescence could not be performed. The patient showed marked improvement on prednisolone 40 mg/day in 4 weeks with healing of all the lesions. The dose of prednisolone was gradually tapered and after 2 months she was on 10 mg/day as a maintenance dose. She came for regular follow-up for 6 months and did not show any activity of the disease.

Case 3

An unmarried Libyan female patient aged 22 years developed asymptomatic vesicular lesions on the mucosa of her lip, 8 months ago. After a month, she developed similar lesions on the face and extremities. Since then, the disease process was continuous with healing of old lesions and appearance of new lesions. She took systemic corticosteroids but of no avail. There was no family history of similar disease. Father and mother were not related. At the time of admission, the patient had multiple tense vesicular and bullous lesions 0.5 to 5 cm in size on the extremities, more on the dorsa of hands and feet, elbows and knees. Some of the lesions were hemorrhagic and some were secondarily infected. There were multiple hyperpigmented macules and hypopigmented atrophic scars with milia on the margins mainly on the hands and feet. A few of the finger and toe nails had atrophied. She also had some tense vesicular lesions on the mucosal surface of the lips. The patient was moderately anemic. No other abnormality could be detected on general examination. The laboratory studies revealed TLC 2,500/cu mm with neutrophils 33%, lymphocytes 54% and basophils 1%, hemoglobin 6.1 gm%, platelets 275,000/cu mm, ESR 66; blood sugar 73 mg/dl, urea 20 mg/dl, creatinine 0.2 mg/dl, sodium 139 mEq/l, potassium 3.9 mEq/l, and chlorides 98 mEq/l; bilirubin 0.5 mg/dl, SGPT 16 units, alkaline phosphatase 20 units, creatine phosphokinase 43 units, serum proteins 7.1 gm/dl, albumin 38%, alpha-1 globulin 3%, alpha-2 globulin 9.5%, beta globulin 10.4%, and gamma globulin 39.1%, serum iron 0.8 mg% and iron binding capacity 3.3 mg/l; rheumatoid factor and LE cell phenomenon (repeated thrice) were negative. Routine urine examination and 24-hour urine for proteins did not show any abnormality, stools examination was also normal and occult blood was not found. X-ray chest was normal and ultrasound did not reveal any abnormality

in liver, gall bladder, spleen, pancreas, kidneys and abdominal lymph glands. Lymph gland biopsy from axilla also did not show any specific change. Biopsy taken from the lesion on the foot showed subepidermal bulla and a mild inflammatory infiltrate. Immunofluorescence was not available. The patient was treated with local and systemic antibiotics, general tonics and haematinics. During her stay in the hospital for a month she developed one or two bullous lesions occasionally. She did not come for regular follow-up but returned after six months with multiple lesions.

Comments

The diagnosis of EBA in all the cases was based mainly on the clinical features comprising (1) adult onset of blistering, (2) absence of family history of epidermolysis bullosa, and (3) presence of tense bullous lesions on the sites of pressure and trauma, healing with atrophy and milia formation. The diagnosis was further supported by histopathological features showing subepidermal bulla with minimal inflammation and absence of the features of other subepidermal bullous dermatoses.

In addition in case 1, linear deposits of IgG and C3 at the basement membrane zone further supported the diagnosis of EBA. Similar immunofluorescence can be observed in bullous pemphigoid and cicatricial pemphigoid, but we can exclude the possibility of these diseases on the basis of clinical features and inadequate response to corticosteroid therapy.

The immunopathologic studies of EBA[4,5] have shown deposits of IgG and sometimes C3 at the basement membrane zone. Nieboer et al[6] and Yaoita et al[7] have reported that IgG deposition is beneath the basal lamina in the upper dermis. This can differentiate EBA from bullous pemphigoid in which the immunoglobulins are located primarily in the lamina lucida. Such specification was not mentioned in the immunofluorescence report on our case.

Diagnosis of EBA in case 2 was based on clinical features and absence of histopathological findings of SLE in the bullous lesion. Association of EBA with SLE has been previously reported.[8]

Case 3 was having typical clinical and histopathological features of EBA, along with anemia, leucopenia, high ESR and raised gamma globulin. The available laboratory investigations could not reveal the cause but the possibility of SLE could not be ruled out completely. Dotson et al[8] have reported a case in whom EBA developed 5 years before the onset of clinical and serologic evidence of SLE.

Other diseases reported to be associated with EBA include multiple myeloma, diabetes mellitus, inflammatory bowel diseases,[3] amyloidoma,[9] chronic thyroiditis,[1] tuberculosis[10] lymphoma, leukemia,[11] and multiple endocrinopathies syndrome.[12]

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