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Table 2. Classification types and major subtypes of EB

Type	Major subtype	Level of cleavage	Protein defects	Mode of inheritance	Severity
EBS	Suprabasal	Intraepidermal	Desmoplakin, plakophilin-1	Almost AD Rarely AR	Mild
	Basal	Basal	K5, K14, plectin, a6b4 integrin		
JEB	Herlitz	Intralamina lucida	Laminin-332	Almost AR Rarely AD	Mild to severe
	Non-Herlitz	Intralamina lucida	Laminin-332, collagen XVII, a6b4 integrin		
Dystrophic	Dominant	Sublamina densa	Collagen VII	AD	Mild
	Recessive	Sublamina densa	Collagen VII	AR	Severe
Kindler		Variable	Kindlin-1	AR	Mild

EB, epidermolysis bullosa; EBS, epidermolysis bullosa simplex; JEB, junctional epidermolysis bullosa; AD, autosomal dominant; AR, autosomal recessive.

systemic antibiotics. Specifically, after determining the location, size, type, and severity of the each wound, they are cleansed by normal saline or diluted antiseptics [4]. When blister formation on wounds is noted, the blister fluid may be removed by sterile needle [5]. If needed, hydrodebridement and mechanical debridement can be performed to prevent infection and help wound contraction [4]. Topical agents such as silver sulfadiazine cream or bacitracin ointment can also be applied to wounds [3]. For dressing, Petrolatum gauze seems to be the most effective dressing material for keeping wounds moist, protecting the site from trauma, and lowering the risk of skin problem such as contact dermatitis [3,4]. Administration of systemic antibiotics is not routine, but can be used if infection is suspected [4]. While most patients can be treated with conservative management, deep and large wounds may require surgical intervention such as skin grafting or local flaps [2,3]. In this report, we present a rare case of Bart syndrome in a newborn. Several treatment options are available for this condition according to severity; however, it is important to note that most cases can be managed by conservative therapy without surgical intervention.

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A Severe Acute Hypersensitivity Reaction after a Hyaluronic Acid with Lidocaine Filler Injection to the Lip

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A 27-year-old woman requesting lip augmentation presented to our clinic (Figs. 1, 2). She had not been treated previously with any dermal filler. She was generally healthy and had no signs of active soft tissue

Fig. 1.
A twenty-seven-year old woman presented requesting lip augmentation.

Fig. 2.
A progressive lip edema occurred within minutes following injection with hyaluronic acid and lidocaine.

infection, cheilitis, or herpes simplex lesions around her perioral area and face. She was not using any medication or herbal supplements (such as vitamin E, ginseng, ginger, or ginkgo biloba). Overall, she seemed to be an ideal candidate for lip augmentation using fillers. Before injection, written informed consent was obtained from the patient. According to standard procedure, EMLA (AstraZeneca PLC, London, UK) cream and cooling packs were applied to the perioral area ten minutes prior to injection. Mucosal and skin preparation was carried out with chlorhexidine gluconate. An Food and Drug Administration (FDA)-approved filler, consisting of 1 mL (0.5 mL per lip) of 24 mg/mL hyaluronic acid (HA) with 0.3% lidocaine (Juvederm Ultra Plus XC, Allergan, Irvine, CA, USA), was injected into the upper and lower vermilion border and vermilion. Retrograde fashion linear threading and serial puncture methods were used with a 30-gauge needle. The procedure was finished with a gentle massage to blend and smooth the region, and cooling packs were reapplied.

Everything was normal upon the completion of the filler injection, but a progressive edema arose on the injection site within minutes. Lip volume increased 3–4 fold during the first hour, and swelling progressed during the first 12 hours after the injection (Fig. 3). The patient was monitored for approximately 2 hours and treated with intravenous antihistamines (a slow infusion of 2 mL of 45.5 mg/2 mL pheniramine maleate). She was closely followed for any sign of respiratory distress or systemic reaction until the reaction was clearly confined. Systemic findings such as hypotension, changes in consciousness, generalized rash, tongue and pharynx edema, dyspnea, or dysphagia were not observed. The edema did not spread outside the injection area and remained localized to the lips. After 3 hours follow-up, she was sent home with oral antihistamines (5 mg desloratadine 2 time/day). Ointments were applied for lubrication to avoid lip fissures and cold compression was continued. The edema started to resolve 48 hours after the start of the reaction and was completely resolved by the seventh day. The patient was worried about her lips after the initial treatment, but ultimately was satisfied enough that she requested another filler session. Before the first session, we examined the patient carefully and asked about her experiences with any previous lidocaine injections such as those that occur during dental treatments, but she did not mention any kind of allergic reaction. Likewise, she had an uneventful rhinoplasty operation one year before this procedure.

HA fillers have a low hypersensitivity profile rate compared to other soft tissue fillers, ranging from 0.6% to 0.8% [1]. Generally, reactions are mild to moderate, self-limited, and continue for less than seven days. However, Leonhardt et al. [2] reported a rare case of severe local hypersensitivity. They observed a sudden swelling of the lips after a HA filler injection. Their patient was treated with steroids and valacyclovir for herpes prophylaxis and reaction was almost completely improved in four days. Recently, FDA-approved fillers containing HA and lidocaine have become available, with the goal of increasing patient comfort. Although there are only a few studies comparing pure HA fillers and fillers containing HA and lidocaine, the available results reveal no significant differences in the safety, efficacy, and longevity between the two treatments, while less

Fig. 3.
Edema was almost completely resolved at 7 days post-injection.

procedural pain has been associated with the use of a filler containing HA and lidocaine [3].

The present report is the first case of a severe angioedema-type acute hypersensitivity reaction to a filler containing HA and lidocaine. In the present case, this acute reaction could be secondary to HA, lidocaine, EMLA cream, or simply due to the repeated punctures of the needle. Although no immunological tests were performed because the patient did not consent, the patient's previous medical history indicates that HA hypersensitivity was more probable than other possible causes of the reaction. Although hypersensitivity reactions can often be treated by topical tacrolimus, intralesional steroids, systemic steroids, or antihistamines, the most commonly used drugs are steroids [4]. However, antihistamines are also frequently indicated in cases of hypersensitivity and they lead successful results. We preferred antihistamines in the treatment of this case and a satisfactory result was obtained. In light of our case and the similar cases in the literature, it seems that lips may have a greater tendency to swell and to show more severe reactions compared to other regions of the face. The high regional blood flow found in the lips may be the reason for this tendency. However, previous review articles about filler complications do not mention a higher possibility of hypersensitivity reactions following lip augmentation [5]. Once an allergic reaction has been observed after procedures involving artificial fillers, autologous lip augmentation options such as fat grafting become the first choice for future use in these patients.

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White-Eyed Medial Orbital Wall Fracture with Oculocardiac Symptoms

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The orbital floor is one of the most common fracture sites, with entrapment of the inferior orbital contents