

A case of anaphylaxis to lidocaine cream

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introduction A lidocaine cream is most commonly used drugs in laser procedure. rarely, patients suffer systemic adverse effects after applying lidocaine cream as local anesthetics. A lidocaine cream may trigger IgE mediated (type I) or delayed (type IV) hypersensitivity reactions. We here report a case of anaphylaxis to lidocaine cream in a 22 year old man who has atopic dermatitis case A 22 year old man who has atopic dermatitis applied lidocaine cream on his chest, abdomen, Both axilla, arms, legs(relatively wide area) before laser procedure for removal of Vulgaris verruca. About 1 hr later he had dyspnea and seizure like movement. Shortly afterward he was transferred to ER and removed lidocaine cream on his body. He had intubated for airway protection. Injected epinephrine. He had been admitted ICU for close monitoring and mechanical ventilation. We had consulting to neurology for seizure mangement and injected anti-convulsant agent. He was resuscitated successfully and recovered well. He had history of atopic dermatitis and no previous history of allergic reactions to drugs and Seizure like movement. Skin prick test with a preservative-free and epinephrine-free 2% lidocaine was positive with a 6-mm wheal. He had a positive reaction to histamine control (10 mm wheal) and a negative reaction to normal saline (0 mm wheal). conclusion Although this case is extremely rare, allergic reaction to lidocaine should be considered seriously. We recommend preder applying lidocaine cream after cleared by negative skin test. Also, it should not use lidocaine cream more than its recommended dose.



Successful treatment of inflammatory arthritis induced by checkpoint inhibitor: a case series

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Background: Immune checkpoint inhibitors (ICIs) have dramatically improved outcome for patients with a variety of cancers. However it is revealed that they are associated with immune-related adverse effects (irAEs). Arthralgia has been observed in ~15% of patients receiving checkpoint inhibitors. However, the incidence of inflammatory arthritis has not been systematically reported. Indeed, there are no clear guidelines. **Aim:** There is no published data about inflammatory arthritis after treatment of ICIs in South Korea. Therefore, we report here 3 serial cases of successful treatment of inflammatory arthritis induced by ICIs as irAEs. **Case reports:** All 3 patients had been treated with pembrolizumab (anti-PD-1) (for 1 month, 4 months, and 18 months, respectively). And all of them did not have predisposing factors of auto-immune disease. Rheumatoid factor (RF), anti-nuclear antibody (ANA), and anti-cyclic citrullinated peptide antibody (anti-CCP) were negative in all patients. While on pembrolizumab, the patients reported progressive pain and swelling in mainly large joints (knee, ankle, and elbow joints) associated with morning stiffness. Ultrasonographic evaluation showed joint effusion and synovial hypertrophy with increased vascularity in power Doppler signal. A patient underwent Tc-99m HDP bone scan, diffusely increased uptake was noted in both knee, ankle, shoulder, and elbow joints (Figure 1). All cases underwent arthrocentesis at the knee joint, which demonstrated inflammatory characteristics with 23,500-25,900 white blood cells (WBCs)/mL in two cases and non-inflammatory characteristics with 290 WBCs/mL in one case. Patients were treated by intra-articular steroid injection, low dose prednisolone, and nonsteroidal anti-inflammatory drugs (NSAIDs), and the responses were all good. Arthritis was recurred after three month of initial treatment in 2 of 3 cases, but improved after the same treatment (Table 1). **Conclusion:** After use of ICIs, inflammatory arthritis affecting large joints in patient without preexisting auto-immune disease showed good response to intra-articular steroid injection, low dose prednisolone and NSAIDs.

Figure 1. Representative images showing inflammatory arthritis induced by checkpoint inhibitor

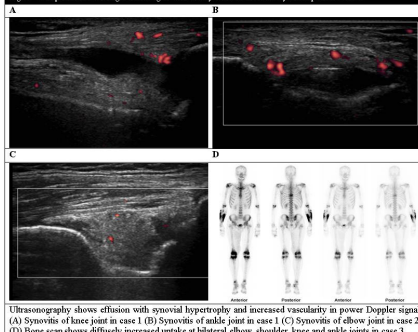


Table 1. Demographic and clinical characteristics of each case

Patient	1	2	3
Age	47	65	46
Sex	Male	Male	Male
Tumor	Lung cancer	Lung cancer	Metastatic melanoma
ICIs	Pembrolizumab	Pembrolizumab	First: Nivolumab Second: Ipilimumab Third: Pembrolizumab
Onset of arthritis	After 2 nd infusion	After 5 th infusion	After 14 th infusion of Pembrolizumab
Pattern of arthritis	Polyarthritis involving large joints (knee, ankle)	Polyarthritis involving large joints (knee, elbow)	Polyarthritis involving large joints (knee, elbow, ankle)
Autoantibody results	ANA: negative CCP: negative RF: negative	ANA 1:40 (Speckled) CCP: negative RF: negative	ANA: negative CCP: negative RF: negative
SF analysis	Non-inflammatory (WBC 290, neutrophil 1%)	Inflammatory (WBC 25900, Neutrophil 76%)	Inflammatory (WBC 23500, neutrophil 17%)
Polarization microscopy	Not found	Not found	Not found
Treatment	Intra-articular steroid injection (triamcinolone 40 mg each in right ankle and knee joints) Prednisolone (10mg/day) Celecoxib (400mg/day)	Intra-articular steroid injection (triamcinolone 40mg in both knee joints) Prednisolone (10mg/day) Celecoxib (400mg/day)	Intra-articular steroid injection (triamcinolone 40mg in right knee joint) Prednisolone (10mg/day) Celecoxib (400mg/day)

ICIs: Immune checkpoint inhibitors, ANA: Anti-nuclear antibody, CCP: Anti-cyclic citrullinated peptide antibody, RF: Rheumatoid factor, WBC: White blood cell.