Author's response to reviews

Title: Acute Compartment Syndrome of the forearm a rare complication to Toxic Epidermal Necrolysis: A Case Report

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Author's response to reviews: see over
Reply to the comments:

Reviewer 1:

- We added to the case report part the scoring of the patient according to SCORTEN: "The patient was also evaluated according to the severity of illness score of toxic epidermal necrolysis (SCORTEN) (11) and given a score of five (he was over 40 years of age, with no malignancy, more than 10% of body surface area detached, he had tachycardia, elevated serum urea and serum bicarbonate and normal glucose level)."

Reviewer 2:

- A better and a more precise clinical description was added to the case report part: "The lesions rapidly progressed within twenty four hours to involve nearly his entire body surface area affecting his face, neck, torso, both arms, legs and perineum (more than 90% body surface area affected) with the developing of atypical and confluent flat target lesions with bullae in their centers. The development of those lesions was followed by extensive cutaneous sloughing and associated with conjunctivitis, high grade fever and malaise"

- A reference to Bastuji-Garin et al., 1993 was added to the case report part: "According to the consensus definition proposed by Bastuji-Garin et al. in 1993 (10), the patient was diagnosed as Toxic Epidermal necrolysis with spots (detachment above 30% of the body surface area plus widespread purpuric macules or flat atypical targets)"

- The patient was discharged from the ICU after 2 weeks and he was discharged from the hospital after a total period of 5 weeks that included a period of rehabilitation. This information was added to the case report part.

- More information regarding the mucosal involvement was added to the case report part as we mentioned that the patient developed, not only oral blistering, but also, oral and rectal erosions (from which oral and rectal biopsies were taken) together with the appearance of conjunctivitis.

- The term "non-immediate allergic reaction induced by drugs (NIRs)" was removed.

- Other types of irrelevant adverse reactions such us DRESS and AGEP were removed

- More up-to-date immunological factors related to the pathogenesis of TEN were added to the discussion: "Recently in 2008, Chung et al. demonstrated that the cytolytic protein graulysin is probably the most important factor in epidermal apoptosis observed in TEN. Its concentration in the blister fluid was several orders of magnitude higher than of other cytokines, such as perforin, granzyme B or Fas ligand and this concentration was found to be positively correlated with disease severity (13). Later, functionally active cells carrying the killer effector receptor CD94/NKG2C were detected in the blister fluid and the peripheral blood of patients with TEN and the authors postulated that this receptor might be involved in trigerring cytotoxic T cells in the acute stage of the disease (14)."
3. We went back to the literature and replaced the review articles with two case-control studies that elaborated the drugs involved in the development of Severe Cutaneous Drug Reactions (SCAR), TEN included: "In 1995, a case-control study assessed the medications that may be related to TEN (4), but according to a more recent case-control study, several drugs were confirmed to be at "high risk" of inducing TEN including: Anti-infectives like cotrimoxazole and sulfonamids, allopurinol, carbamazepine, phenytoin, phenobarbital and NSAID's of the oxicam-type. Other drugs with "significant but lower risk" included acetic-acid NSAID'S, macrolides, quinolones, cephalosporins and tetracyclines (5)."

Being convinced with the fact that the inducing drug usually does not have an influence on the severity and outcome of TEN once it started, we modified the title of the case report and removed the "Allopurinol-Induced" part: "Acute Compartment Syndrome of the forearm a rare complication to Toxic Epidermal Necrolysis: A Case Report". We are reporting acute compartment syndrome as a rare complication of TEN irrespective of the inducing drug, which in our case happened to be allopurinol.

The repeated parts in the introduction and the case presentation were removed.

The patient was European decent and this piece of information was added to the case report part.