



Comment on: Chitosan-induced Cogan's-like syndrome: a case series of two patients following peripartum haemorrhage

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DEAR EDITOR, We read with great interest the recent article by Haase *et al.* [1], describing two cases of Cogan's-like syndrome following the use of a chitosan-coated tamponade gauze (Celox PPH, Medtrade Products Ltd, UK) for the treatment of postpartum haemorrhage.

The available literature consistently confirms that conditions such as uveitis and Cogan's syndrome are rare clinical entities. However, recent reports suggest a non-negligible clustering of such manifestations following the use of chitosan-based tamponade systems. In particular, Mala *et al.* [2] described three patients developing autoimmune ocular inflammation with audiovestibular involvement resembling typical or atypical Cogan's syndrome shortly after intrauterine chitosan tamponade. Another recent case series by Beckers *et al.* [3] reported on six postpartum patients presenting with acute bilateral uveitis within 48–72 h after chitosan-coated gauze tamponade, with some cases also exhibiting auditory symptoms and perichondritis.

Although these observations remain limited to case series and do not establish causality, the temporal relationship, the consistency of clinical presentation and the absence of alternative aetiologies strongly suggest a meaningful association. Importantly, all three studies emphasize the rarity of these conditions in the general population, which further strengthens the relevance of such clustering [1–3].

At the same time, it is essential to contextualize these findings within obstetric practice. Chitosan-based tamponade represents a potentially life-saving intervention in severe PPH, particularly in cases refractory to first-line medical therapy and standard mechanical approaches. Its ability to secure rapid control of blood loss has been well documented and has contributed to reducing the need for more invasive procedures such as hysterectomy [3, 4].

It is noteworthy that in all the 11 reported cases associated with a Cogan-like syndrome [1–3], a caesarean section was

performed. In comparison, in a registry-based cohort of 230 women treated with the chitosan-coated gauze, caesarean sections were reported in only 37% of cases [4]. Moreover, it is worth mentioning that in some settings the device may have been used beyond its intended scope. In the same registry-based cohort, the insertion was transvaginal through a dilated cervix in 67% of cases but transabdominal during a primary caesarean section in 33%. However, the instructions for use of the device clearly state that the device must be applied and removed vaginally, and that in case of application during or after a caesarean section, the uterine incision must be closed prior to applying the device transvaginally [5]. In none of the 11 reported cases associated with a Cogan-like syndrome [1–3] is the route of application of the chitosan-coated gauze clearly described, and in some of them the gauze might have been applied transabdominally through an open hysterotomy, contrary to the manufacturer's instructions. In one case, the gauze appears to have been applied transabdominally for pelvic packing after an emergency hysterectomy [2].

It is common clinical experience that, during manipulation prior to insertion, the chitosan-coated tamponade gauze releases fragments of its coating in the form of a fine powder. We speculate that in the event of transabdominal insertion at Caesarean delivery, large amounts of chitosan antigens might be rapidly processed by peritoneal immune cells or absorbed into the lymphatic system [6]. This can possibly enhance the macrophage-mediated mechanisms hypothesized by Haase *et al.* [1] in the causation of chitosan-related Cogan-like syndrome.

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