

## **Case report: First Record of Human Myiasis caused by *Chrysomia bezziana* (Villeneuve) in Iran (Diptera, Calliphoridae)**

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### **Abstract**

A 45 year old farmer from Espand village (located in the west of Iranshahr county, Sistan and Baluchistan Province, southeastern of Iran) with some clinical manifestations referred to the Khatam-Al-Anbia Hospital in the city of Iranshahr. CT scan showed an extensive edema in nasal and para nasal sinuses. Endoscopy consideration revealed the presence of numerous larvae lodged inside the nasal cavity. Our precise investigations indicated that the flies were the old world screwworm (*Chrysomia bezziana*) according to the morphological characters of adult flies and full grown larvae.

**Key Words:** *Chrysomia bezziana*, Human myiasis, Iran

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### **Case Report**

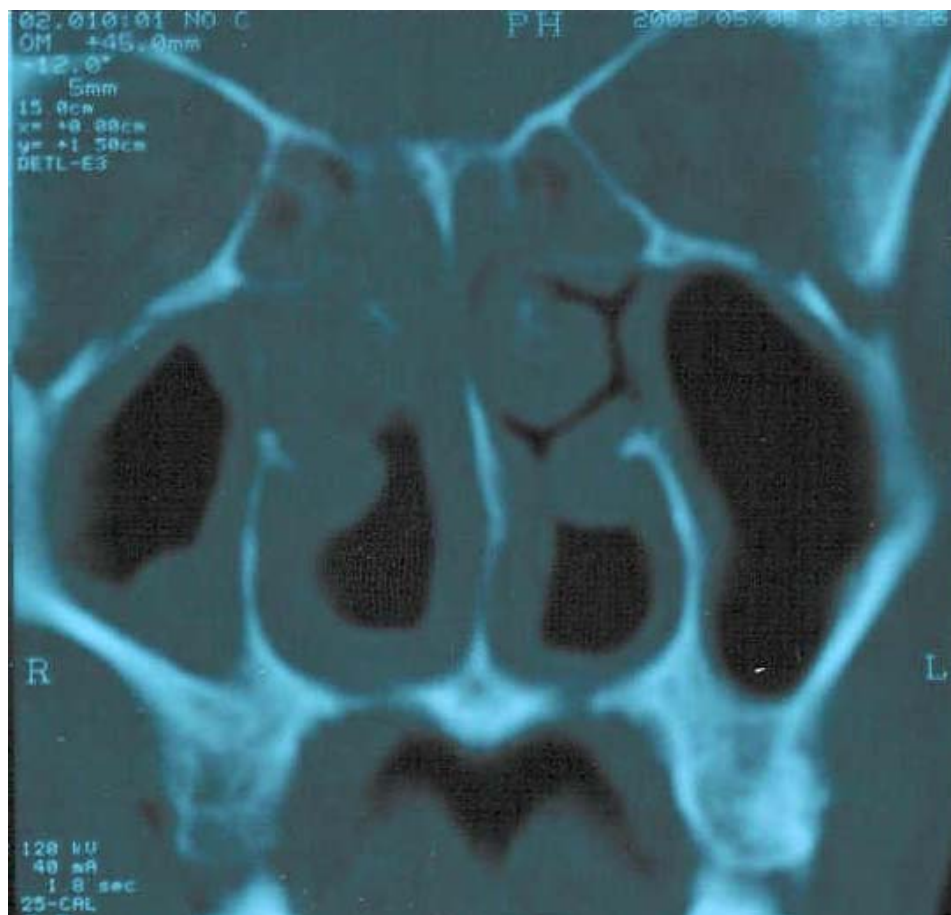
This is the first report of *Chrysomia bezziana* larval infection in human in Iran. A 45 year old farmer from Espand village (located in the west of Iranshahr county, Sistan and Baluchistan Province, southeastern of Iran) with sever headache, vertigo, nosebleed, edema in face and agitation symptoms, referred to the Khatam-Al-Anbia Hospital in the city of Iranshahr. CT scan showed an extensive edema in nasal and para nasal sinuses (Figure 1). Endoscopy consideration revealed the presence of numerous larvae lodged inside the nasal cavity. In the operating room, on May 6, 2002 about 60 larvae of 3<sup>rd</sup> instar fly larvae were pulled out under the general anesthesia condition. Some of the larvae were preserved in 70% methanol and the rest were reared on ground beef placed on the top of moist soil in a mosquito net case under insectary condition (RH 70±5% and Temperature 30±2°C). The full grown larvae crawled into the soil and developed to adult flies later on. The larvae and adult flies were identified by the available keys (1, 2, 3). Our precise identification indicated that the flies were the old world screwworm

(*Chrysomia bezziana*) according to the following morphological characters of adult flies and full grown larvae which jointly confirm its identify: adult; Hypoleuron with prominent bristles, colour metallic, base of stem vein dorsally with row of bristles, anterior spiracles dark and lower squamae waxy white covered with fine hairs above, third instar full grown larvae: body without prominent papillae, peritreme open, tracheal trunks not heavily pigmented, posterior margin of segment 11 with dorsal spines and anterior spiracles with 4-6 papillae. Six adult flies (3 males and 3 females) and six full grown larvae have been deposited in the collection of Entomology Museum, School of Public Health, Tehran University of Medical Sciences. Figure 2 and 3 are the pictures of adult and larva of relevant specimens. Figure 3 are the pictures of the posterior and anterior spiracle of full grown third instar larvae. The occurrence of old world screwworm had although been noticed in the Bandar Abbas at the neck of Persian Gulf since 1975, but it became widely dispersed throughout the southern coast of Iran about in

1997 (Unpublished data, personal observations) and then it was accidentally introduced to Bahrain, etc. The patient's life history implied that he usually was resting near the goats in his farm at mid- days, when the goats were exposed to the attack of myiasis larvae.

## References

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**Fig. 1:** The infected sinus of the patient (CT scan)

**Figures 2:** The adult fly (Female) of *Chrysomia bezzianna*.

**Fig. 3:** posterior (left) and anterior (right) spiracles of the full grown third instar larva of *Ch. Bezziana*, (Iranshahr, summer2002)