Reviewer's report

Title: Furuncular myiasis of the breast caused by the African Tumbu Fly (Cordylobia anthropophaga).

Version: 3 Date: 2 January 2004

Reviewer: Ian F Burgess

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General
This case report is of some interest, as much for its visuals as for its other content.

The report is overly long for its content and the authors appear not to have been discriminatory in their reporting and comment. It contains quite a lot of information copied from other reports that may be misleading to the uninitiated and potentially hazardous in some cases.

Discretionary Revisions (which the author can choose to ignore)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. Most of the Abstract and Introduction are appropriate and need little editing, although minor turns of phrase improvement would benefit the construction. However, I do not think that given the rarity of myiasis of the breast that a “high index of suspicion” is the appropriate term to employ in making a differential diagnosis. More appropriately “keeping an open mind” that this diagnosis could be a possibility would be a better option for most physicians.

2. There is an inconsistency about presentation of scientific names of species. They should either be given in italics or underlined, not both alternatives in different places and not both together.

3. The section of the Introduction beginning “Cordylobia anthropophaga is a non hematogenous dipterion….” This should be hematophagous and dipteran. It is the fly that has the various names i.e. “Tumbu fly”, “Verde Cayor” etc, according to local trivial terminology, it is not the myiasis caused by that fly that has those names.

4. At the end of the same section of the Introduction various genera of myiasis causing flies are named. If this information is to be included it would be helpful to explain that these flies are mostly not African in origin and I do wonder whether it is really necessary to mention most of them at all unless considerable further background information is also supplied.

5. The Case Report section is fine. The only comment I would make is that it should be pointed out that the visit by the patient to her home area “several months back” could not have been linked with this episode of infestation as any maggots acquired at that time would have completed development long before she was seen by the authors. The infestation described must have been acquired just a few days prior to her admission to hospital.

6. The Discussion is over long and involved, in places almost contradictory and constructed mainly from sections paraphrased or précised from other works. Some of the references do not contain the information stated, e.g. reference 8 is a brief identification guide to myiasis causing larvae, it does not describe different organs affected by myiasis flies. There are several other more classic works describing the number, variety, and habits of myiasis causing insects.
7. It is important to distinguish between the presentation of Cordylobia anthropophaga myiasis and Dermatobia hominis myiasis (the latter being S and Central American). The latter also has a maggot that takes 6-12 weeks to develop to full size and is around twice as long and about 6-12 times the mass when fully developed. An animal of this size is relatively easily identified by ultrasound and its movements are quite pronounced. Doing this with a much smaller Cordylobia maggot is less likely to succeed. Apart from this, why would one need to do so as Cordylobia generally leaves a relatively wide open orifice in the furuncle so that the spiracles and moving maggots are normally relatively easily seen? This is clearly demonstrated in the video footage.

8. Some of the treatment options used by other authors are not attractive. I presume by “paraffin” the authors mean liquid paraffin not kerosene! Actually many of the suggestions are not practical or effective. Usually a simple air occlusion is all that is required so petroleum jelly is the treatment of choice covered with a simple impermeable occlusive dressing, e.g. cellulose adhesive tape or a waterproof dressing. The use of organic solvents, insecticides, chemical irritants, or physical irritants is not to be considered and these may have a direct toxic effect on the patient or, if the insect is killed in situ, an anaphylactiform reaction could result as large amounts of maggot protein become available to the immune system.

9. It is important to stress that Cordylobia is normally a parasite of rodents and small mammals. It only accidentally parasitizes humans and this is usually because they have either physically had contact with contaminated earth or else they have dried clothing on contaminated soil. Flies do sometimes lay eggs on clothing but only if it is contaminated with sweat, urine, or other body fluids and normally only if it is in shade. Full sunlight often kills larvae and ironing certainly does. The important factors are adequate washing and adequate heat exposure prior to wearing. These points have been well made in the conclusions but could be made clearer in the Discussion.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

What next?: Accept after minor essential revisions

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests: None