# Cutaneous Leishmaniasis in Gozo

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Leishmaniasis is caused by a protozoon which has a flagellate (promastigote) stage in the sandfly and an ovoid (amastigote) stage in human tissues. Three species of Leishmania are generally described although morphologically they are identical:

(a) **Leishmania donovani,** producing
1. Visceral leishmaniasis (Kala-azar)
2. Post-kala-azar dermal leishmaniasis

(b) **Leishmania tropica,** producing
3. Cutaneous leishmaniasis

(c) **Leishmania braziliensis,** producing
4. Mucocutaneous leishmaniasis

Kala-azar is endemic in the Maltese islands, and post-kala-azar dermal leishmaniasis has been recorded at least once. However, this is the first description of primary cutaneous leishmaniasis acquired locally.

### Hisotory

J.G., a 17-month old girl from Għajnsielem, presented in May 1983 with a 7-month history of a painless, bluish-red nodule on the right cheek which ulcerated after 5 months. Tetracycline and chloramphenicol had been applied locally without success. There was no previous history of Kala-azar, and she had never been abroad.

### Examination

The nodule was approximately 13mm in diameter (Figure 1). The ulcer was 6 mm across and it was covered with a crust. The draining lymphnodes were not enlarged. The girl's general condition was excellent. There was no enlargement of lymphnodes, liver or spleen.

### Investigation

Microscopy of a slit-skin smear from the edge of the ulcer revealed typical amastigotes inside and outside histiocytes. The leishmanin skin test was positive.

### Treatment

Sodium Stibogluconate BP (Pentostam, Wellcome) 0.25ml/kg bodyweight was injected intramuscularly in the buttock area once daily for 14 days. The lesion healed slowly with complete disappearance of the crust and induration. The ulcer was replaced by a depressed scar and pink discoloration of the area persisted for several weeks after. Treatment produced no clinical side-effects and her haemoglobin and white cell count remained unchanged during the course of treatment.

### Comment

Since my return to Malta in April 1982 I have made a clinical diagnosis of classical cutaneous leishmaniasis in an additional 7 patients (Table 1). They all came from Gozo. The lesions were usually single and on the face. A typical granulomatous infiltrate was present in the four patients from whom a skin sample was taken, but it was not possible to demonstrate amastigotes in tissue sections stained with Giemsa or Leishman's stain. However, they were demonstrated in the slit-skin smear of patient F.G.. The leishmanin skin test was positive in the two patients tested.

I cannot account for the fact that cutaneous leishmaniasis was not reported earlier. Lesions may heal spontaneously and they may therefore have been dismissed as ordinary insect bites. The fact that the disease seems to be limited to Gozo suggests recent importation. It is important to recognize the disease because treatment, although difficult, may prevent unsightly scars. Further research will be aimed at culturing the parasite with a view to serological typing, identifying the animal reservoir, and a study of the relative efficacy of different therapeutic approaches including rifampicin plus isoniazid. Public health measures should be aimed at eliminating the breeding places of the sandfly, and the destruction of infected animals.

### Acknowledgements

The slit skin smears were examined by Dr. Mifsud of the cytology department, St Luke's Hospital. The histological sections were prepared and examined by the histopathology department of the same hospital. The leishmanin reagent was kindly donated to me by Dr. D.Evans of the London School of Hygiene and Tropical Medicine.

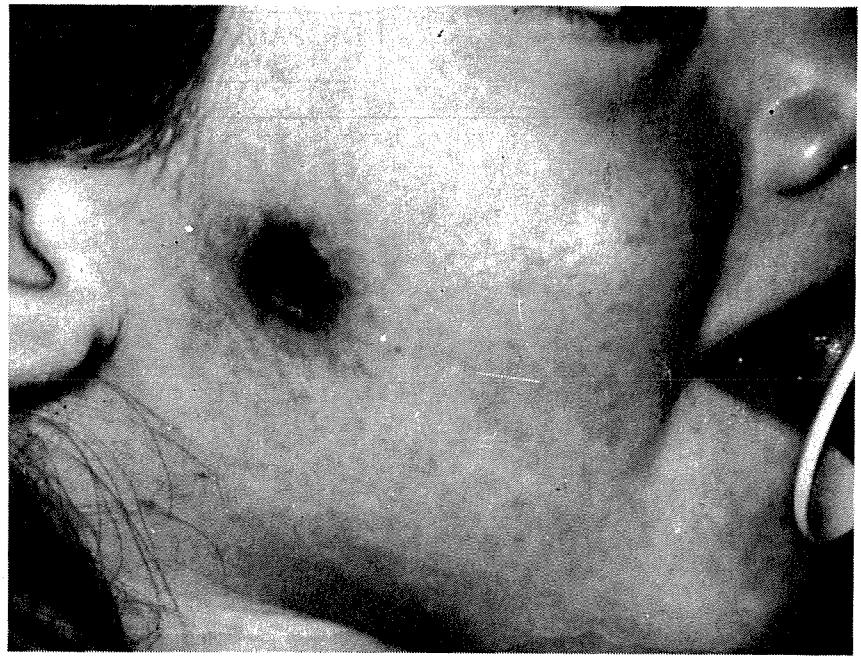

*Figure 1. Typical cutaneous leishmaniasis. Amastigotes were present in a slit-skin smear from the ulcer's edge.*

TABLE 1: **Details of 7 patients with suspected cutaneous leishmaniasis**

| Patient | Sex | Age | Residence | Site | Duration (months) | Histology | Slit-skin smear | Leishmanin test |
|---|---|---|---|---|---|---|---|---|
| FG | F | 65 | Qala | cheek | 6 | granuloma | positive | positive |
| SM | F | 2 | Nadur | eyelid | 5 | not done | negative | positive |
| MM | M | 50 | Victoria | foot | 1 | granuloma | not done | not done |
| CS | F | 23 | Qala | shin | 18 | granuloma | not done | not done |
| LE | F | 10 | Victoria | cheek | ? | granuloma | not done | not done |
| AD | M | 7 | Xagħra | cheek | 10 | not done | not done | not done |
| MC | F | 67 | Nadur | leg | 12 | not done | not done | not done |