

**PRIMARY CULTURE OF *MYCOBACTERIUM ULCERANS* FROM HUMAN TISSUE
SPECIMENS AFTER STORAGE IN A SEMI-SOLID TRANSPORT MEDIUM**

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Purpose of the study: Transportation of clinical specimens for laboratory confirmation of Buruli ulcer to local reference laboratories or abroad usually takes time and can not always be done under refrigerated conditions. Difficulties in transportation in BU endemic regions often result in delays before samples can be handled in the laboratory. The impact of the delay before microbiological analysis on primary culture of *M. ulcerans* was investigated.

Methods: Tissue specimens collected from clinically suspected Buruli ulcer patients treated in two Buruli ulcer treatment centres in Benin between 1998 and 2004 were placed in a semi-solid agar medium and transported at ambient temperature for microbiological analysis in the Institute of Tropical Medicine in Antwerp, Belgium.

Results: Storage in semi-solid agar medium varied between 6 days up to 26 weeks. Among the 1273 tissue fragments positive for *M. ulcerans*-DNA by IS2404-PCR, 576 (45.2%) yielded cultures. The sensitivity of direct smear examination was 64.6% (822/1273). The median time to obtain a culture was 11 weeks. Cultures were obtained even from samples kept more than two months at ambient temperatures. Moreover, there was no reduction in viability of *M. ulcerans* as detected by culture when specimens remain for long periods of time (up to 26 weeks) in a semi-solid transport medium.

Conclusion: We can conclude that the semi-solid transport method used is very robust for clinical specimens from patients with Buruli ulcer that, due to circumstances, can not be timely analysed. This transport medium is thus very useful for the confirmation of diagnosis of Buruli ulcer in specimens collected in the field.