

Unstained Slides for the Diagnosis of Certain Treponematoses

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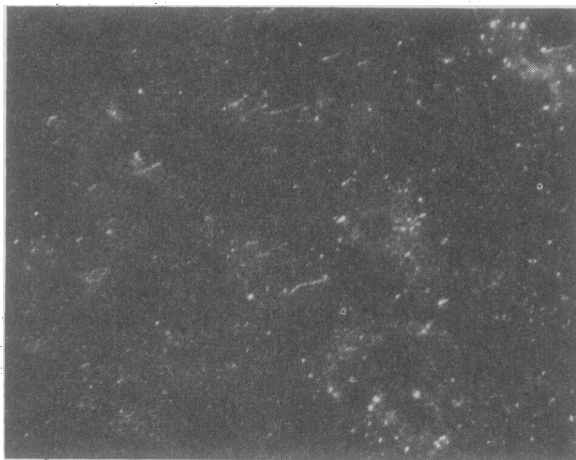
The procedure and techniques we describe may be helpful in diagnosing treponemal or spirochetoidal infections in localities where a microscope is not available or, if available, lacks a condenser for dark-ground illumination.

Before communicating our results, we examined slides from *Treponema pallidum* lesions sent to us from different regions of our territory, which extends from parallels 18 to 56, and others coming from different countries and containing material from open lesions produced by other treponemata than *pallida*.

Slides to be sent to the laboratory can be dried at room temperature without previous fixing with any substance; they may be fixed with ether-alcohol or, preferably, a 10-percent formalin solution. A slide or a piece of window glass containing a thick coating of dried material can be sent by ordinary mail or by air mail, wrapped in common or filter paper. After this material is received in the laboratory it is mixed with tepid normosalt on the same slide or glass; thin films are laid on unscratched glass, fixed with 10-percent formol, rinsed in tap water, and dried over a low flame.

Dark-ground observation of the slide can be made with a powerful lens or under double immersion. Under dark-ground illumination, spiral micro-organisms appear as brilliant as when seen in fresh material, only they are motionless. Epithelial cells, leukocytes, and red blood corpuscles also preserve their shape and

characteristics. The bodies of treponemata appear as a succession of brilliant dots, varying in number from 4 to 16 or more, sometimes linear, at other times slightly curved in appearance. Spirochetoidea, on the contrary, show their bodies as a continuous, flexuous, worm-like unit, tapering towards its extremities. Curves are more open and fewer in number.



Dark-ground illumination of fixed unstained slides for the diagnosis of certain treponematoses. A sample of what can be obtained with a 6L (Leitz) lens and a No. 10 (Zeiss) photo-ocular lens.

Fuchsin-stained preparations of material containing treponemata or spirochetoidea can also be observed under dark-ground illumination; spirochetoidea appear brilliant and colored, treponemata appear brilliant, slightly colored, or, more commonly, unstained.

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