Isolation and identification of Haemophilus ducreyi in a clinical laboratory

Lubwama, SW; Plummer, FA; Ndinya-Achola, JO; Nsanze, H; Namaara, W; D'Costa, LJ; Ronald, AR

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Abstract:

Routine procedures used to isolate Haemophilus ducreyi in a busy laboratory are reported. Identification was based on colony morphology and nutritional and biochemical properties of 120 fresh isolates of H. ducreyi. These isolates grew very well on Gonococcal Agar and Mueller-Hinton Agar incubated at 34 degrees C in candle extinction jars containing moistened filter paper. Colonies varied in size, giving a polymorphic appearance. They were smooth, dome-shaped, and buff-yellow to grey in colour, and measured 2 mm in diameter. They could be pushed intact across the agar surface. By microscopic examination of gram-stained smears the isolates were gram-negative coccobacilli arranged in short chains, clumps or whorls and occasionally in typical "rail track" arrangements. Individual bacteria showed bipolar staining. Colonies autoagglutinated in saline. All strains were catalase-negative and did not produce indole or H2S. They were oxidase- and beta-lactamase positive and required X but not V factor for growth. Now that reliable techniques have been developed and characteristics established it is possible for most clinical laboratories to isolate and identify this organism from most patients with chancroid.