

Thesis Title            Cultivation Antibiogram and Mobilized  
Resistant Genes of *Haemophilus ducreyi*  
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#### ABSTRACT

Since the extremely nutritional fastidious of the causative agent, *H. ducreyi*, confirmation of chancroid by cultivation is not sensitive. Complicated medium with supplement has been reported without significant outcomes by many investigators. This dissertation aims to re-evaluate the cultivation methods using 3 different selective enriched media. Ulcer scrapings were collected from 127 chancroid patients at the Nang-Learng, VD center, Department of CDC, during 1989 to 1990. Microscopic examinations were performed by Unna's papenheim staining. Cultures were simultaneously established on the following media: GCHgs composed of GC agar base supplemented with 2% bovine hemoglobin, 1% isovitalex and 3 mg/L vancomycin; MH-HB composed of Mueller Hinton agar base supplemented with 5% chocolate horse blood, 1% isovitalex and 3 mg/L vancomycin; BH-HB composed of brain heart infusion agar supplemented with 5% chocolate horse blood, 5% fetal bovine serum, 1% isovitalex and 3 mg/L vancomycin. Results revealed that

20.5% (26 out of 127 specimens) were smear positive showing the characteristic "shool of fish" arrangements. The cultivation rate of GCHgS, MH-HB and BH-HB were 8.7%, 15.7% and 15.7%, respectively. Combinative detection with bimedia showed 21.3%, 20.5% and 25.2% on the combination of GCHgs and MH-HB, GCHgs and BH-HB, MH-HB and BH-HB, respectively. With trimedia, *H. ducreyi* was isolated 37 out of 127 patients (29.1%). Uncorrelation of cultivation versus microscopic evaluation was revealed. Inclusion of both cultivation and microscopic significantly increased the sensitivity for chancroid detection. Using the trimedia and smear detection rate grew up to 37.8%.

Antimicrobial susceptibility test was performed on *H. ducreyi* isolates using agar dilution technique. All isolates were susceptible to ceftriaxone, erythromycin, norfloxacin, ofloxacin, ciprofloxacin and spectinomycin. They all were resisted to tetracycline, sulfamethoxazole. Majority of isolates were resisted to trimethoprim and co-trimoxazole with an increasing trend. At least 3 plasmids were found in an individual *H. ducreyi*. Using the Lamda Hind III DNA fragments as molecular weight markers, plasmids from individual organism were classified into 7 plasmid patterns. Artificial transformations were performed upon *E. coli*. The results showed that 17 kb, 10 kb, 3.1 kb plasmids carried ampicillin resistant characteristic while the 4.7 Kb carried kanamycin resistance.