

003863

PHARMACOLOGY OF METRONIDAZOLE
IN ANAEROBIC INFECTIONS

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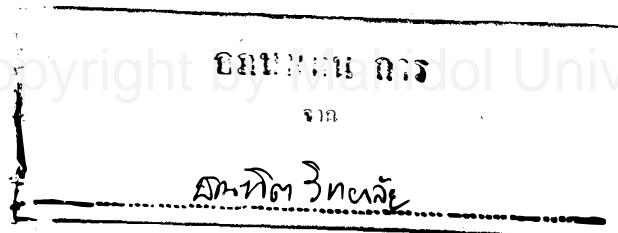
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SUMMARY

Several reviews in the past 2 decade emphasized the importance of gram-negative bacilli which are non-sporing obligate anaerobes as pathogenic agents (especially Bacteroides fragilis) and involved in many serious human infections such as septicemia, endocarditis, meningitis, brain abscess and several abdominal, pelvic post-operative infections. Penicillin, tetracyclin, chloramphenicol and lincomycin were noted to be effective in the treatment of anaerobic bacterial infections since 1968. Metronidazole holds significant activity against virtually all obligatory bacteria in 1972. It has been found that metronidazole caused no resistant in clinical used. However, there are few failure rates in the treatment of anaerobic infections with metronidazole. These may be due to the pharmacokinetics nature with its unique mechanism of action. Metronidazole is excreted, 60-80% as its metabolites, some of which posses some biological activities, metronidazole and its metabolites have tumor-causing activity in animal and causing chromosomal aberration in human with long term treatment. It remains to be established that the mutagenic activity of metronidazole indeed accounts for its carcinogenicity activity in human. There is no evidence of teratogenic effect of metronidazole in animal model but therapy should be defered until second trimester or advoided during theperoid of pregnancy. Although, metronidazole is low in toxicity and has been successfully used in many severe anaerobic in fections, the judicious use of the drug, especially reserved for life-saving measure is strongly recommended.
