

ANTIAMOEBICS

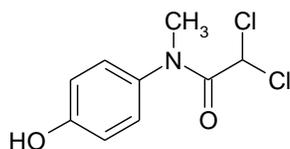
- The major Protozoan diseases of man are malaria, amoebiasis, Trypanosomiasis and fishmaniasis and Giardiasis.
- Amoebiasis is caused by the protozoan Entamoeba histolytica.
- Entamoeba histolytica, can invade the wall of the colon or other part of the body (exam- liver, lungs or skin).

CLASSIFICATION –

The Antiamoebic drugs (Amoebicides) may be classified in following category –

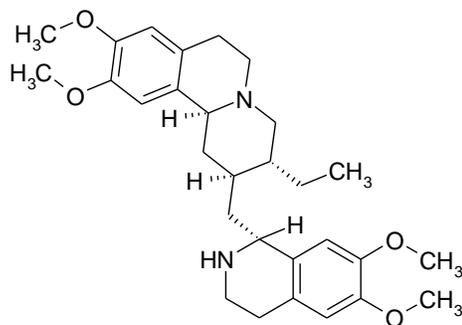
1) – LUMINAL AMOEBICIDES – Active only against intestinal form of Amoeba.

Example - Diloxanide



2) – SYSTEMIC AMOEBICIDES – Effective only in invasive forms of amoebiasis .

Example – Dehydroemetine and Emetine.



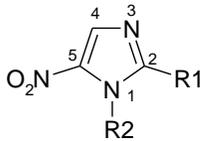
Emetine

NOTE – Mechanism of action – They are protoplasmic poisons that inhibit protein synthesis in protozoal and mammalian cells by preventing protein elongation.

3) – MIXED AMOEBICIDES - Active against both intestinal and systemic forms of Amoebiasis.

Example – Metronidazole

5 –Nitroimidazoles



DRUG	R1	R2
Metronidazole	CH ₃	CH ₂ -CH ₂ -OH
Tinidazole	CH ₃	CH ₂ -CH ₂ SO ₂ C ₂ H ₅

- Metronidazole was first marketed for the topical treatment of Trichomonas vaginalis vaginitis .
- It acts by interfering with DNA through a metabolite in which the nitro group of meyronidazole has been reduced.