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Research Article

ANTIMICROBIAL ACTIVITY OF SCHIFF BASE OF OFLOXACIN

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ABSTRACT

The Antimicrobial activity of Schiff base of ofloxacin, was investigated in vitro under aseptic conditions, using the disk diffusion method, against various gram positive and gram negative pathogenic microorganisms such as Pseudomonas aeruginosa (P.A.), Staphylococcus aureus (S.aureus), Helicobacter pylori (H. pylori), Escherichia coli (E. coli), Methicillin-resistant Staphylococcus aureus (MRSA) and some fungal strains such as, Aspergillus fumigatus, Pneumocystis carinii and Aspergillus niger. A series of these compounds were prepared and have been shown to inhibit pathogenic growth, judging from the area of the zone of inhibition. The area of zone of inhibition of compounds found from 6 mm^2 to 48 mm^2. Among the synthesized compounds; ***Compound SV-14*** *(6-[(4,7-Dimethyl-benzothiazole-2-carbothioyl)-hydrazono]-8-fluoro-3-methyl-9-(4-methyl-piperazin-1-yl)-2,3-dihydro-6H-1-oxa-3a-aza-phenalene-5- carboxylic acid, showed good activity against P.A. (zone of inhibition 8 mm^2 at 30 µg/ml), H. pylori (zone of inhibition 6 mm^2 at 30 µg/ml) and E. coli (zone of inhibition 8 mm^2 at 30 µg/ml); Compounds* ***SV-8, SV-9, SV-10, SV-11, SV-12, SV-13 and SV-14*** *exhibited promising antibacterial activity. The target compounds showed in vitro antibacterial & antifungal activity less than reference antibiotic ofloxacin.*

Keywords: *Antimicrobial, Schiff base, Zone of Inhibition, Ofloxacin.*