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Synthesis, Characterization and Biological Evaluation of Novel Quinazoline Derivatives

JOHP

Mr. Swapnil P Chaudhari^{*}, Mr Kalpesh Wagh¹ and Dr Prakash H Patil,²

Institute of Pharmaceutical Education Boradi, Tal Shirpur Dist Dhulia, Maharashtra, 425 405.

1) & 2) Assist professor 3) Professor

Address for Correspondence: editojohp@gmail.com

ABSTRACT

In the present study, a series of novel quinazoline derivatives were synthesized by condensation with different aromatic amines via cyclized intermediate 2-phenyl-1,3-benzoxazin-4-one. The chemical structures were confirmed by means of IR, ¹H NMR. These compounds were screened for anti bacterial (*Staphylococcus aureus* ATCC-9144, *Escherichia coli* ATCC-25922, activities by paper disc diffusion technique. The potency of antibiotic content in samples can be determined by chemical, physical or biological means. An assay is made to determine the ability of an antibiotic to kill or inhibit the growth of living microorganism. The inhibition of microbial growth under standardized conditions may be utilized for demonstrating the therapeutic efficacy of drugs. Microorganism employed in biological assay are of various types- bacteria for amino acid, antibiotics, fungi for vitamins, trace elements, antibiotics and fungicidal and fungi static materials. The synthesized compounds were evaluated for anti-bacterial activity. Some of these synthesized compounds shown significant anti-bacterial activity.

Key words: Quinazoline, Aromatic amines, Anti-bacterial activity.