

1.7 Aim of investigation

Reviewing the various structural features of non steroidal compounds with COX1 or COX2 inhibitory activity and the good results of COXs inhibitory activity of the synthesized and published compounds namely aminoacetylenic N-(4-t-amino-2 butynyl) phthalimide. These observations promoted our interest to synthesize aminoacetylenic tetrahydrophthalimide to generate new and novel anti-inflammatory agents, these new derivatives provide greater lipophilic properties relative to our previous compounds, the structure flexibility gained from tetrahydrophthalimide may provide an effective overlap with COX enzymes.

Structural features of COX1,COX2 selective and non selective ones are associated with gastric ulceration or cardiovascular problem respectively, The current research directed to have compounds free of acidic groups such as carboxyl, sulfonamide or sulphone, namely 2-(prop-2-yn-1-yl)-2,3,3a,4,7,7a-hexahydro-1H-isoindole-1,3-dione

These derivatives are basic in nature and has less gastric ulceration, with analgesic and antipyretic activity. The selective structural properties and ability to overlap and inhibit the inflammatory enzymes COX1 or COX2 represent a novel approach that has to be tested.