?1-Adrenergic and 5-HT2-serotonergic effects of some ?-alkoxy-?-phenylethylamines on isolated rat thoracic aorta

Torres, Milton A.

Rezende, C.

Cassels, Bruce K.

1. Ten racemic ?-alkoxy-?-phenylethylamines were found to elicit concentration dependent contraction of the isolated rat thoracic aorta with apparent pot values in the 4.56-6.76 range. With one exception, which produces the same maximal contraction (E(max)) as serotonin (5-HT), the E, values attained with these compounds are lower than those produced by either 5-HT or norepinephrine (NE). 2. Pretreatment with either prazosin or ketanserin (10-8 M) leads in most cases to decreased E(max) values and slopes in the dose-response curves. Apparent serotonergic (pD2(S)) and adrenergic (pD2(A)) pD2 values going from 4.22 to 6.08 (pD2(S)) and from 3.87 to 5.27 (pD2(A)) were calculated from results obtained in the presence of prazosin or ketanserin, respectively. 3. In the 10-7-10-5 M range, and in contrast with the results obtained with the previous compounds BON [(±) 2 (2,5 dimethoxy-4-nitrophenyl)-2-methoxy-ethylamine] behaves as an antagonist to both 5-HT and NE (apparent pA2 = 7.08 and 7.45