SYNTHESIS OF POTENTIAL ANTI-CANCER AGENTS.

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Considerable quantity of research work have been done in the field of heterocyclic nitrogen mustards because of their anticancer and anti-leukemic properties. N-methyl nitrogen mustards have been used in Hodgkin's disease, certain leukemia and carcinoma of breast and lungs. Aryl N,N-di-2-chloroethyl derivatives were found to inhibit the growth of various animal tumours. First heterocyclic uracil nitrogen mustard of potential anticancerous activity was synthesized by Baker etal. The half mustard such as Ar.N(SO_2R)CH_2CH_2Cl has been shown some promise in clinical trial by its unequivocal anticancer activity. 5-fluorouracil was reported to show some effect on solid tumours but it was toxic. Phthalazones are physiologically active and its nitrogen mustards may not be toxic. Hence we decided to introduce monofunctional and bifunctional nitrogen mustards groups at 2-and 4-positions of phthalaz-1,4-dione. A number of such nitrogen mustards have been synthesized in our laboratory and their anticancerous property are under investigations.