

**The fibrinolytic activity of anti-inflammatory drugs**

SIR,—Buffered solutions of certain organic acids can bring about the thrombolysis of human plasma clots when incubated with them *in vitro* (von Kaulla, 1962), and some derivatives of biphenylcarboxylic acid (Gryglewski, 1966), *N*-phenylanthranilic acid (Gryglewski & Gryglewska, 1966) and 5-benzyloxy-salicylic acid (von Kaulla, 1965a) are highly active fibrinolytic agents.

The formation, deposition and resolution of fibrin in the intercellular space is believed to be a regulating factor in the development of inflammation (Astrup, 1966). Since some non-steroidal anti-inflammatory drugs are acidic it was tempting to check their influence on fibrinolysis. A modification of von Kaulla's (1965b) method was used (Gryglewski, 1966) to test the sodium salts of six well known analgesics (Table 1).

TABLE 1. FIBRINOLYTIC ACTIVITY OF SIX ANTI-INFLAMMATORY DRUGS. THE DISSOLUTION OF HUMAN PLASMA CLOTS AFTER 24 HR INCUBATION AT 37° IN 0.2 M TRIS-BUFFER pH 7.4 CONTAINING DIFFERENT CONCENTRATIONS OF DRUGS.

Compound	The range of fibrinolytic concentrations in mM/litre
Salicylic acid . . . .	Trace of activity 200-250
Acetylsalicylic acid . . . .	Trace of activity 150-200
Amidopyrine . . . .	Trace of activity 100-150
Phenylbutazone . . . .	Full activity 9-18
Mefenamic acid . . . .	Full activity 3-7
Flufenamic acid . . . .	Full activity 1.5-4

A relation between anti-inflammatory and fibrinolytic potency is seen. Winter, Shen & Sarett (1964) compared the anti-inflammatory activity of aspirin, phenylbutazone, flufenamic acid and indomethacin in cotton-pellet induced granuloma in rats. Comparable effects were achieved with aspirin, 150 mg/kg, phenylbutazone, 30 mg/kg, flufenamic acid, 3.3 mg/kg, and indomethacin, 0.4 mg/kg. Unfortunately indomethacin was not available to me but if indomethacin also proves to be a potent fibrinolytic agent the fibrinolytic activity of analgesics could be considered to be an indicator of their anti-inflammatory mechanism of action.

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