TABLE I

| Experimental parameters | Control | Compound A (10 mg./100 g. I.P.) | Compound B (10 mg./100 g. I.P.) | Betamethasone (50 mg./100 g. I.P.) |
|---|---|---|---|---|
| 1. Carrageenin 1% induced oedema (Mean increase in paw volume ± S.E.) | 11·3±0·82 | 6·5±0·60 P< 0·001 | 4·6 ±0·34 P< 0·001 | 2·5±0·42 P< 0·001 |
| 2. Formaldehyde 1% induced oedema (Mean increase in paw volume ± S.E.) | 12·7±0·54 | 5·8±1·05 P< 0·05 | 6·0 ±0·92 P< 0·05 | 8·5±0·86 P< 0·05 |
| 3. Croton oil induced granuloma pouch (Mean volume of exudate in ml. ±S.E.) | 0·5± 0·08 | 0·1±0·04 P< 0·001 | 0·08±0·01 P< 0·001 | 0·1±0·02 P< 0·001 |
| 4. Cotton pellet induced granuloma (Mean weight of granulation tissue in mg.± S.E.) | 160±4·7 | 86±9·8 P< 0·05 | 74±8·7 P< 0·05 | 42±3·8 P< 0·001 |

volume measurements were made by means of mercury plethysmograph.[8]

## RESULTS

Compounds A and B were found to have significant anti-inflammatory activity. Results are summarised in Table I.

Compound C was entirely devoid of any anti-inflammatory effect against all of the experimental parameters used. The results show that Compounds A and B are active against both acute (carrageenin and formaldehyde induced oedemas) inflammation and subacute (croton oil granuloma pouch and cotton pellet granuloma techniques[9]) inflammations. The results compare favourably with those obtained with betamethasone, though the effective dose of the latter was much lower. A comparison of the results, elicited by the two active Compounds A and B, show that their activities run parallel in equi-effective doses.

The observations are interesting for record that long-chain alkanes and alkanols, ranging from $C_{27}$ to $C_{32}$, which are ubiquitous in the plant kingdom, possess anti-inflammatory activity, which has not been reported earlier.[9]

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## AN UNUSUAL MINERAL ASSEMBLAGE IN TUFFISITE VEINS AT PIMPALWANDI, DISTRICT POONA, MAHARASHTRA

MANY of the Deccan trap flows of Poona and nearby areas very often contain vein-like bodies composed of fine-grained rock of varying colour. In many cases, these bodies appear to have been formed by filling in of open joints in the lower flow from above, but at times they appear to have been intruded from below. Study of the rocks from such bodies was undertaken with a view to inquire into their nature and mode of emplacement. As a result of this study a few of such veins, exposed in well sections in the vicinity of Pimpalwandi, a village 98 km. from Poona on Poona-Nasik Road, were found to be of tuffaceous material and showed the presence of an unusual assemblage of minerals. The occurrence of the tuffisite veins and the mineral assemblage is being recorded for the first time from this part of Deccan trap region.

The veins, observed at Pimpalwandi, vary in thickness from 0·5 cm. to about 15 cm. and cut the rock in irregular manner, forming a network. They are made up of fine-grained material of earthy or pale-brown colour. Angular or subangular fragments of basalt are found incorporated in the vein material. In thin section the vein rock shows irregular fragments of varying sizes and shapes of reddish-brown glass, basalt, and grains of different minerals, sometimes showing perfect crystal forms, cemented together in a base of zeolites. The mineral assemblage comprises augite, aegirine-augite, diopside, clinoenstatite, olivine, barkevikite (?), leucite, sanidine, plagioclase felspar, epidote, chlorite and iddingsite.

Of these minerals, augite and plagioclase felspar are common constituents of Deccan basalt. Epidote, chlorite, and iddingsite could be attributed to the later deuteric activity or hydrothermal changes. The remaining minerals are found neither in the basalt, in which the veins occur, nor in the lithic fragments incorporated in them, thus indicating that the vein material was emplaced in the rock from some external source. The micro-structure of the vein rock (Fig. 1) shows its similarity with tuff. Such rocks having tuffaceous nature and occurring in the form of veins have been called 'tuffisites'.[1] Such tuffisite veins are suggested to have formed by the injection of tuffaceous material into the country rock through the medium of water[2] or gas[3] or by the mobilization of tuff due to plastic flow.[4]

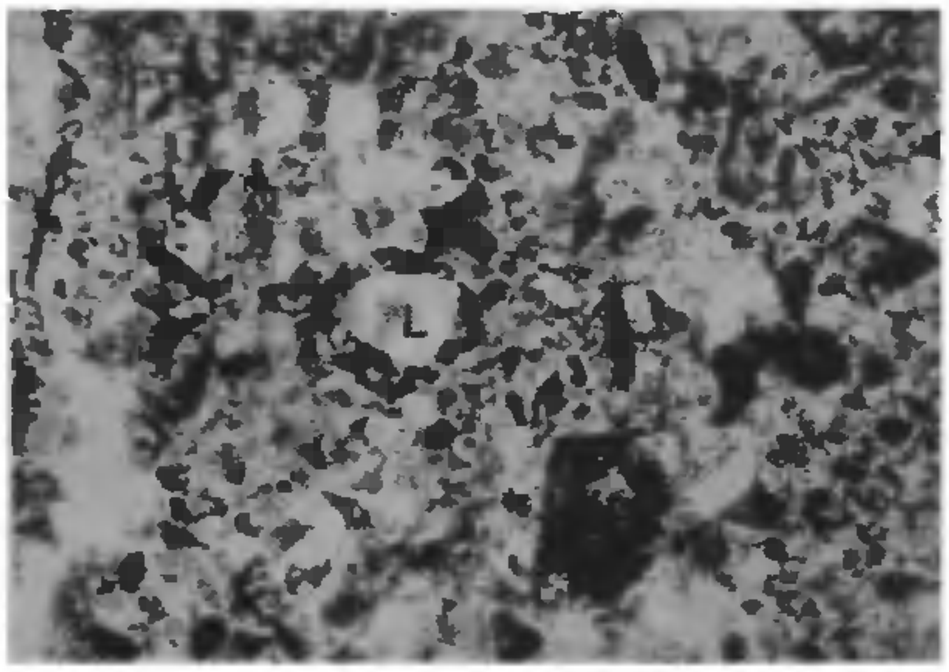

**FIG. 1.** Photomicrograph of tuffisite from Pimpalwandi. L—Leucite, × 15 (plane polarised light).

The presence of minerals like sanidine, aegirine-augite, leucite, and olivine suggests alkaline nature of the lava from which they were derived. The Deccan basalts are believed to be tholeitic and so far there is no record of any basalt flow of alkaline nature, containing these minerals, in this part. Their presence in the veins suggests a tuff bed or a basalt flow of alkaline nature somewhere in the vicinity.

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## ABNORMAL DEVELOPMENT OF LOWER INCISORS IN THE INDIAN GERBIL, *TATERA INDICA INDICA* (HARDWICKE) (RODENTIA: MURIDAE)

SEVERAL instances of abnormal development of teeth in different groups of mammals have been published by Intosh (1931), Landery (1957), Chaturvedi (1966) and others. However, no case of anomaly in the dentition of any Gerbil has so far been recorded. Therefore, the following example of anomalous lower incisors in a specimen of the Indian Gerbil, *Tatera indica indica* (Hardwicke) will be of much interest on the subject.

The specimen was collected from the Punjab. It was found to be remarkable in having excessively elongated lower incisors measuring about 20 mm., which came out of the mouth and extended nearly upto forehead. The upper incisors were entirely lacking. From the structure of molar teeth and sutures of the skull it becomes obvious that the specimen was fully adult, but shorter palate and nasal length indicate that their normal development was disturbed by the overgrowth of the lower incisors. Other parts of the skull remain unaffected.

Various reasons for the abnormal development of incisors have been put forward by the earlier workers. In the present case it would appear that, probably due to some accident during the early period of its life, upper incisors failed to grow, so that the lower incisors