Antirachitic Factor in Kabuli Chhola Oil.

IN two of our previous communications, published in *Current Science*,[1] we referred to some important points regarding the presence of oil-soluble vitamin A in some pulses and fishes. A few physiological and spectrographic records were also published. In the present communication we reproduce two X-ray photographs.

Fig. 1 is that of a rat kept on rachitogenetic diet all through.

Fig. 2 was fed on rachitogenetic diet from the 7th February 1934 to the 5th March 1934.

From the 5th March, the rat No. 2 was given a daily dose of freshly prepared Kabuli Chhola Oil.

On the 17th March, under X-ray observation, a distinct indication in calcification was noted in rat No. 2.

X-ray photographs here reproduced were taken on the 5th April 1934.

There was a litter of eight rats born on the 5th January 1934. These eight rats formed the subject of the present investigation. All of them gave similar results under experimental conditions.

Fig. 1. Rachitic.

Fig. 2. X-ray Photograph after Kabuli Chhola Oil Feeding.

It may be mentioned that weight of bones, bone ash, calcium and phosphorus present in the ashes were also determined. The results all went to confirm the anti-rachitic quality of Kabuli Chhola Oil.

Bones of non-rachitic rats weighed considerably heavier than rachitic ones. Again the percentage of ash of *bones dried at 100°C.* was found to be as follows :—

Bone ash of non-rachitic rats 53·13.

Bone ash of fully rachitic rats 44·68.

Bone ash of partially cured rats 47·78.

Finally the Ca to P ratio were in the following order :—

Non-rachitic, 2·20 ; fully rachitic, 1·91 ; and Rickets cured (Rachitis cured), 2·06.

Other details as regards calorific value and comparative results obtained with different pulses will be published in the *Transactions of the Bose Research Institute.*

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[1] Nag and Banerjee, *Curr. Sci.*, 1933, **2**, 3, 95.

Banerjee and Nag, *Curr. Sci.*, 1933, **2**, 4, 131—132.