

powerful than saligenin itself. Figures 3 and 4 illustrate the difference between the effects of brom-meta-saligenin and brom-para-saligenin on isolated intestinal segments from the same cat. Again, it will be noted that the brom-meta compound is 15 times more potent than the corresponding brom-para compound as a sedative for smooth muscle. Clinical studies have already been made with regard to the antispasmodic effects of the above mentioned compounds and are now being conducted especially with mono-brom-ortho-saligenin, or Bromsalizol, which, as appears from the table, offers the widest margin of safety as well as the most efficient therapeutic index.

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Vitamin A of Serum Following Administration of Haliver Oil in Normal Children and in Chronic Steatorrhea.

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After the ingestion of an oil of high vitamin A content, such as haliver oil, a marked increase in the intensity of the Price-Carr reaction for vitamin A is observed in the blood serum of normal persons. The degree of this increase may indicate the ability of the individual to absorb vitamin A. The amount of vitamin A in the serum is stated in colorimetric units which are purely arbitrary. Using a 10% solution of copper sulphate as a standard, serum of sufficient content in vitamin A to match the standard when acted upon by the antimony trichloride reagent is considered to contain 100 units of vitamin A per 100 cc. Each colorimetric unit is equivalent to 2.9 biological units.

To 12 afebrile children who were considered to have no disorder in the absorption of fats, 2 cc. of haliver oil* were administered while the children were fasting. Throughout the remainder of the 24-hour test period, the children ate meals with low vitamin A content at the usual times. Blood was taken for analysis before the ingestion of the oil, and 2, 4, 6, 9, 12, and 24 hours afterwards. The maximum concentration of vitamin A is observed at 4 hours and is approximately 9 times the fasting level. (Table I.) The level at 24 hours is about 50% above the original level.

* Furnished by the courtesy of the Abbott Laboratories.

Two children suffering from idiopathic steatorrhea (celiac disease) were observed during the course of their hospitalization and treatment. It was found that the rise of vitamin A in the serum is much less than in the normal children and that the maximum rise occurs later after the ingestion of the oil; also, that during the phase of clinical improvement, the rise is more marked. We may assume that the low rise is due to faulty absorption although a more rapid withdrawal from the blood stream or a reexcretion into the intestine may play a part.

TABLE I.

Time hr.	Normal Mean	Probable error	Celiac Disease				Chronic Diarrhea (Not Celiac)	
			Case I		Case II		Case I	Case II
			Before Treat.	After Treat.	Before Treat.	After Treat.		
Fasting	25.4	± 2.05	12	14	8	28	28	48
2	72.8	± 11.0	20	14	11	34		73
4	226.8	± 13.8	37	100	8	21	300	294
6	153.5	± 15.1	45	146	12			275
9	71.0	± 2.9	80	52	11	45		75
12	55.1	± 2.2	74	30	15		49	69
24	37.5	± 3.6	39	22	14	37		31

In 2 patients with chronic diarrhea, stools with abnormally high fat content and a flat glucose-tolerance curve, all of which are suggestive of celiac disease, the vitamin A absorption curve was found to be normal. The subsequent clinical course of these patients proved that they were not suffering from celiac disease. It is, therefore, suggested that the test for vitamin A absorption may have diagnostic value in the chronic diarrheas.