improvement in chronic constipation, 4 felt less fatigued or were "peppier", 2 enjoyed improved appetites, and one noted an increased thirst.

Summary. 1. The thiamin and pyrimidine excretion in the urine of older subjects, after different levels of thiamin intake, was measured by the fermentation method of Schultz, Atkin and Frey. 2. There appears to be a sex difference in the excretion of thiamin which is not apparent in the excretion of pyrimidine. 3. The response of people in this age group to increased thiamin intake is similar to that of younger people so far as excretion is concerned. 4. "Retention" calculated as thiamin intake minus thiamin plus pyrimidine excreted, was more nearly proportional to intake than was the amount excreted. 5. Six out of the 8 subjects reported some type of subjective reaction to the increased thiamin intake. Physical examinations before and after the experimental period revealed no significant changes.

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Response of Intraocular Prostatic Implants in Rabbit to Gonadotropic Hormone Administration.*

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Recent work by Krichesky, *et al.*, has demonstrated the effect of testosterone propionate on prostatic implants in the eye of the male rabbit, and has confirmed earlier reports that maintenance of the transplanted accessory tissue is dependent on the normal functioning of the testes, since castration results in atrophy of the transplanted tissue.[1] In undertaking a similar experiment in which 2 different gonadotropic agents were administered, a consistent response was observed which, to the writers' knowledge, has heretofore been unreported.

Fifteen male rabbits from 4 to 6 months of age were completely

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1 Krichesky, B., Benjamin, J. A., Belt, E., and Schwartz, M., *J. Urology*, 1941, **46**, 303.

prostatectomized and bits of the excised tissue implanted into the anterior chamber of the eyes following the technic described by Benjamin, *et al.*[2] Of the 60 transplants (4 per animal) 36 remained observable and in an apparently normal physiologic condition. A photographic method was employed in recording the day by day area of the transplants. The areas of individual transplants were calculated by means of a planimeter and the average value over a 2-week period was taken as 100% for that implant. An increase in area was then expressed as greater than 100% and a decrease as less than 100%.

All animals were injected subcutaneously 6 days per week for a 2-week period with either chorionic gonadotropin (APL) or hypophyseal gonadotropin (Anterior Hypophyseal Gonadotropic Factor).‡ In 5 cases, after the animals had undergone such a series of injections with one hormone, they were allowed to rest for approximately one month and were then subjected to a second series of injections with the other gonadotropic agent. The results were in no way distorted by this procedure since the character and magnitude of the responses were not different from those animals given only one series of injections. Two animals were given a second series of injections of APL after having been injected previously with the same hormone.

A typical response curve (Fig. 1) serves as representative of the majority of cases, since no differences were observed with respect to APL or Gonadotropin in the amounts given (100 to 500 IU daily of APL, and 100 to 500 RU daily of Gonadotropin). During the injection period there was a rise in transplant area reaching a peak averaging 130% at 4 to 8 days after the beginning of treatment Following this initial rise there was a decrease in area, despite continued injections, to a point usually below the preinjection level. In 18 out of 22 series of injections a second rise occurred 6 to 18 days after the last injection. This "secondary response" approached and in some cases even exceeded the initial response (Fig. 1). The average magnitude of the increase was 27% with a range from 12% to 41% followed always by regression.

In all instances in which a second series of injections were carried out on a given animal but with a different gonadotropic hormone, the responses were not observably different from the initial responses to the first series of injections. Two animals received a second series

2 Benjamin, J. A., Belt, E., and Krichesky, B., *J. Urology*, 1940, **44**, 109.

‡ APL and Anterior Hypophyseal Gonadotropic Factor prepared by Ayerst, McKenna and Harrison (U.S.), Limited.

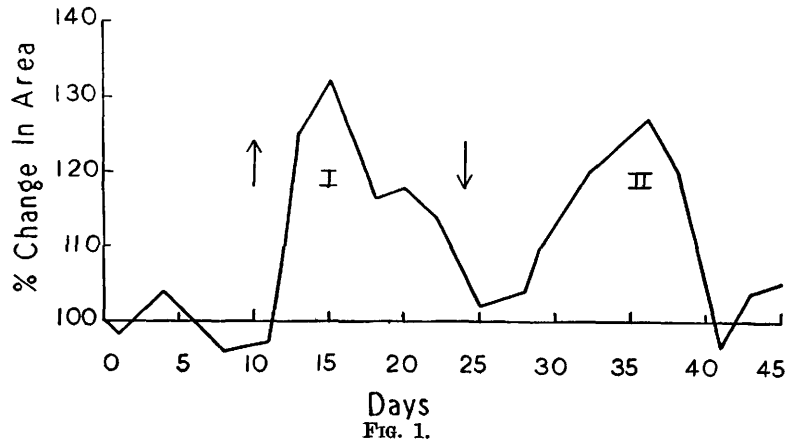

FIG. 1.

The response of intraocular prostatic implants in an untreated male rabbit to a series of 12 injections of 200 IU of A.P.L.

↑ = Injections begun. ↓ = Injections stopped.
I = Primary response. II = Secondary response.

of injections of the same hormone. No response occurred in these during the course of hormone administration but several days after the cessation of injections both animals exhibited a rise in transplant area followed by regression (Fig. 2). In these animals although no primary response was elicited by a second series of injections with the same hormone a secondary response was obtained.

Further work is in progress in an attempt to study the reaction described here as a "secondary response," a phenomenon which to the writers' knowledge has not been reported previously.

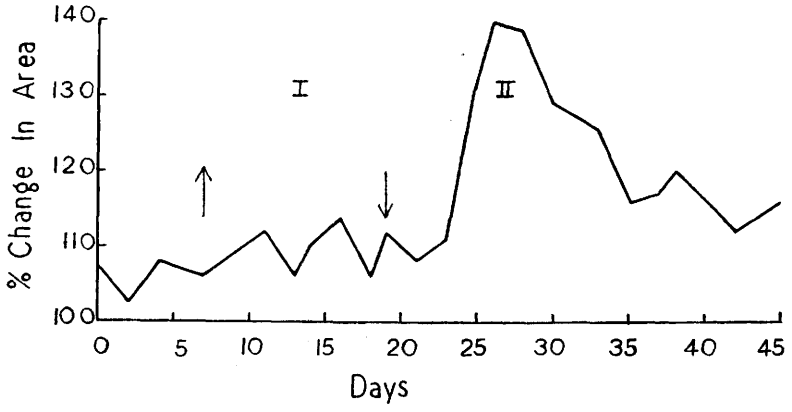

FIG. 2.

The response of intraocular prostatic implants in a male rabbit previously treated with A.P.L. to a second series of 12 injections of 200 IU of A.P.L.

↑ = Injections begun. ↓ = Injections stopped.
I = Primary response. II = Secondary response.