

SUMMARY

1. Retinyl methyl ether promotes the growth of vitamin A deficient rats when administered by various routes.
2. Unchanged retinyl methyl ether was detected in livers after oral administration but not after intraperitoneal or subcutaneous administration.
3. The intraperitoneal administration of retinyl methyl ether was as effective as its oral administration with respect to its conversion to vitamin A, if not more so.
4. Oral administration of retinyl methyl ether led to a progressive increase of vitamin A in the liver upto 12 hrs, after which it plateaued.
5. Conversion of retinyl methyl ether to retinol was demonstrated in vitro both by everted intestinal sacs and by a cell-free system from a liver homogenate.
6. It seems that retinyl methyl ether exerts its vitamin A activity only after its conversion to vitamin A, and not by itself.

7. Liver is probably the major site of conversion of retinyl methyl ether to retinol, although the intestine is yet another important site.

8. Since the conversion of retinyl methyl ether to retinol is a slow process in vitro, nothing definite can be concluded about the nature of the enzyme catalysing this reaction and the mechanism of this conversion.

BIOGRAPHY

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