

tocopherol acetate.

2. Failure of implantation was observed after the eighth month in females without tocopherol supplements. With continuous tocopherol administration, the implantation rate was normal after one year. Single post-mating tocopherol supplements increased the implantation rate in older rats significantly. The requirements necessary for successful implantation in older rats vary widely and increase steeply with age.

3. Infections of the uterus and the tubes were frequently observed in the deficient rats, but not in those on the complete diet. Presence of infection does not explain the higher implantation rate after single post-mating tocopherol doses.

4. The changes leading to the failure of implantation are prevented, but once present, only partly counteracted by alpha tocopherol acetate.

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Amputation of the Canine Atrial Appendages.*

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Thrombus formation in the left atrial appendage and embolization therefrom are frequent sequelae of rheumatic mitral stenosis. Surgical excision of the thrombus-containing appendage suggests itself as a possible therapeutic approach to this problem. As a preliminary step experiments were performed to determine the effect of amputation of one or both atrial appendages in normal dogs.

Methods. The surgical procedures under anaesthesia, consisted essentially of exposure of the heart through an incision in the left fifth or sixth intercostal space, pericardiotomy, presentation of the atrial appendage with an Allis clamp, isolation of the appendage from the atrium with a right angle clamp or curved hemostat, ligation of the base of the appendage proximal to the clamp and finally amputation of the appendage. Excision of the left atrial appendage was accomplished with the animal in the left lateral position.

Electrocardiograms were obtained pre-operatively and at varying intervals during the post-operative period. The animals were sacrificed and necropsy performed 4 to 12 weeks following surgery. Eight animals were used, 5 undergoing left, 2 right and one bilateral atrial appendectomy.

Results. Seven of the 8 dogs survived the operation. The first animal developed respiratory difficulty and died 15 minutes after closure of the chest. All the surviving animals made uneventful recoveries. Serial electrocardiograms failed to reveal abnormal atrial rhythms or evidence of atrial injury except in one dog which developed transient intra-atrial block. Necropsy revealed complete endothelialization at the site of the atrial scar. No subjacent mural thrombi were found. Pericardial and pleuro-pericardial adhesions occurred.

Conclusion. Excision of one or both atrial appendages is feasible in dogs.

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