

# QUIZ THE EXPERT

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## STERILANT ACTION OF QUINACRINE

### QUESTION

*What is the mode of action and degree of effectiveness of the chemosterilant quinacrine for achieving tubal occlusion for sterilization in women?*

M.D.

### ANSWER

Quinacrine hydrochloride, mainly used as an antimalarial agent, has been used as a nontoxic chemosterilant in transvaginal procedures in the human female. Clinical experiments indicate that quinacrine acts as a powerful obstructive agent exclusively on the epithelium of the intramural portion of the tube, without altering the histology of the endometrium.

The precise mechanism of quinacrine's obstructive action on the mucosa of the uterotubal junction

is unknown. One possible mode of action is that it binds to epithelial DNA, thus forming a clot of granulomatous tissue, as quinacrine is known to form adhesions when used in the control of neoplastic effusions. Zinc is known to inhibit quinacrine-DNA binding. The human endometrium, rich in zinc, is unaffected by quinacrine, whereas the tubal cornua, with little zinc, promote the obstruction by quinacrine-DNA bondage.

The procedure is effective in 90% of cases with two instillations of quinacrine. Further studies are essential to find agents that will potentiate the action of quinacrine on the human fallopian tube epithelium.

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We solicit questions for "Quiz the Expert" dealing with current advances or concerns in the field of fertility and sterility. Each question published will be answered by an individual with special expertise. Questions should be directed to the Editor, Roger D. Kempers, M.D., 200 First Street, S.W., Rochester, Minn. 55901. Questions should not exceed 250 words.