Charcoal Culture for *Strongyloides*

PRINCIPLE

Culture techniques are useful to detect light numbers of larvae not found during normal concentration procedures. They also allow for easier speciation between stronglyoides and hookworm due to development of rhabidifrom larvae of hookworm. Finally culture techniques allow larvae to develop to the filariform stage to further aid in diagnosis. This method is less sensitive than the agar plate method since it relies on directly observing the larvae. Charcoal is used to maintain pH and to provide a medium in which the larvae can develop.

SPECIMEN

Fresh stool sample that has not been refrigerated.

SAFETY

- Assume that the sample contains filaraform larvae and wear gloves and take measures to prevent the larvae from migrating out of the dish.
- Warn co-workers about the nature of your work.

PROCEDURE

This is considered to be a non-routine procedure therefore it should only be performed by experienced personnel.

1. Mix 20-40 g of fecal material in tap water until a thick suspension is obtained.

2. Add this mixture to a suitable covered dish to which has been added a similar volume of #10 granulated hardwood charcoal.

3. Mix the suspension well using a tongue depressor. Add enough water so that the charcoal with glisten but not enough to allow it to lay at the bottom of the dish. Keep at room temperature.

4. Check culture daily for sufficient moisture and sprinkle water on the surface, if needed. *As infective filariform larvae could be present at any time during this procedure, caution must be used when any handling of the culture occurs.*

5. After 5-6 days the larvae, if present, can be harvested by using the Baermann technique.