Screw worm infection

(*Cochiliomya hominivorax* and *Chrysomia bezziana*)

Etiology :

Larvae of the flies ***Cochiliomya hominivorax*** **and** ***Chrysomia bezziana*** cause myiasis or scrow worm disease in animals .

- ***Cochiliomya hominivorax*** (new world screw worm) being blue-green with orange head .
- ***Chrysomia bezziana*** (old world screw worm) is of similar coloring .

Pathogenesis :

Following invasion to the wound a cavernous lesion is formed , characterized by progressive liquefaction , necrosis and haemorrhage . anaemia and decrease total serum protein results from haemorrhage into the wound . Secondary bacterial infection , toxemia and fluid loss contribute to the death of the animals . Surviving calves frequently develop infectious polyarthritis .

Clinical findings :

The young larvae invade the nearby healthy tissues vigorously and do not feed on necrotic superficial tissues . A profuse brown exudates , composed of larval excreta and host fluid pours from the wound and an objectionable odor is apparent .

- This is highly attractive to other flies and multiple infections of a single wound may occur within few days .
- The resulting tissues damage may be so extensive that the animal is virtually eaten alive .

-Affected animals show irritation in the early phase of the infestation and by day 3 show pyrexia . Animal do not feed but wander about restlessly , seeking shade and shelter .

Clinical pathology :

The appearance and smell of the wound are significant but carefully examination of the larvae is necessary to confirm the diagnosis .

Mature larvae are 1 – 2 cm long and pink in color , they are pointed anteriory and blunt posteriory , two dark lines are visible reaching from the blunt posterior to the middle of the body and they have rows of dark fine spines on the anterior part of each segment .

Differential diagnosis :

The presence of maggot in the wound is usually apparent . It is important to differentiate them from blow fly larvae are necessary .

- -Blowflies (Calliphoridae) are characterized by the ability of their larvae to develop in animal flesh. Where the host is a living vertebrate, such parasitism by dipterous larvae is known as myiasis.

Treatment :

affected wound should be treated with dressing containing an efficient larvicide and antiseptic .

2- Lindane 3% and coumaphose 3% .

3-fenchlorphose 2.5% ,diazinon 1.5 %

4-stirofos 15% ,dichlorvos 20%.

an ointment or gel base left in site should be vigorously applied with paint brush ,the treatment should repeated twice weekly .

when large number of animal affected ,**spraying with 0.25% solution of coumaphose ,chlorvinphose or fenchlorphos** .

5-Ivermectin 0.2 mg/kg give s/c killed all larvae up to 2 day old provide protection for 16-20 d**ay .**

Control

In enzootic area break the life cycle of fly
Surgical procedure should be postponed until cold weather.
All range animal should be inspected twice weekly and affected animal treated .
The routine use of **Ivermectin** for internal parasite control give protection for about 2 week.
Attractant may also be used to reduce the fly population .

دورة الحياة :

الاناث البالغة تضع 150-500 بيضة في الجروح الحديثة تفقس خلال 12 ساعة . تخترق الانسجة المجاورة للجرح ,
- تنضج خلال 5-7 يوم ,يصل 2سم ,تترك الجرح وتنزل الى الارض -اليرقات تتغذى بشكل جماعي وخلال النضوج تحفر انفاق 10
-12سم ,تكمل دورة حياة خلال اسابيع او اشهر .

هناك 15 جيل خلال سنة .