

Surgery of Eye

Entropion

Entropion is inward rolling of the eyelid margin; it may be conformational, developmental, spastic, or cicatricial.

GENERAL CONSIDERATIONS

- Entropion may affect the entire length of the eyelid margin or may be limited to one area.
- Developmental entropion may not show up until later in life.
- Developmental or conformational entropion is a common condition in purebred dogs; it is also rarely seen in cats.
- The affected area may involve one portion of the eyelid margin or the entire lid margin.

Medical Management

- A nonsurgical method of treating entropion includes subcutaneous injection of an antibiotic such as procaine penicillin, which provides temporary eyelid margin eversion.

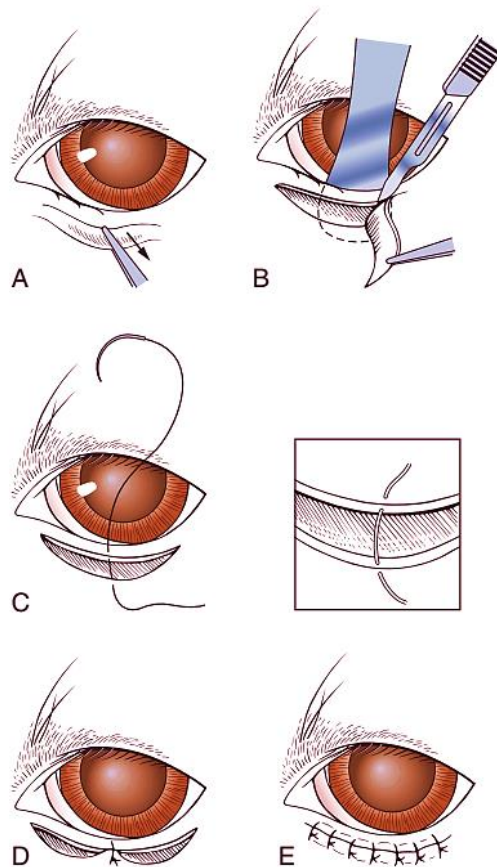
Surgical Management

Various methods of treating entropion have been described. Selection of technique is based on the species and on the severity and position of the abnormality.

A-Excisional Procedures (Hotz-Celsus procedure)

- 1- Position animals with entropion in ventral recumbency.
- 2- Estimate the size of the ellipse to be removed by clamping the skin in the area of entropion with a curved mosquito, Halsted or Crile forcep across the skin to be excised.
- 3- Stabilize the eyelid by placing a Jaeger eyelid plate into the conjunctival fornix under the affected eyelid, and gently pull and stretch the lid.

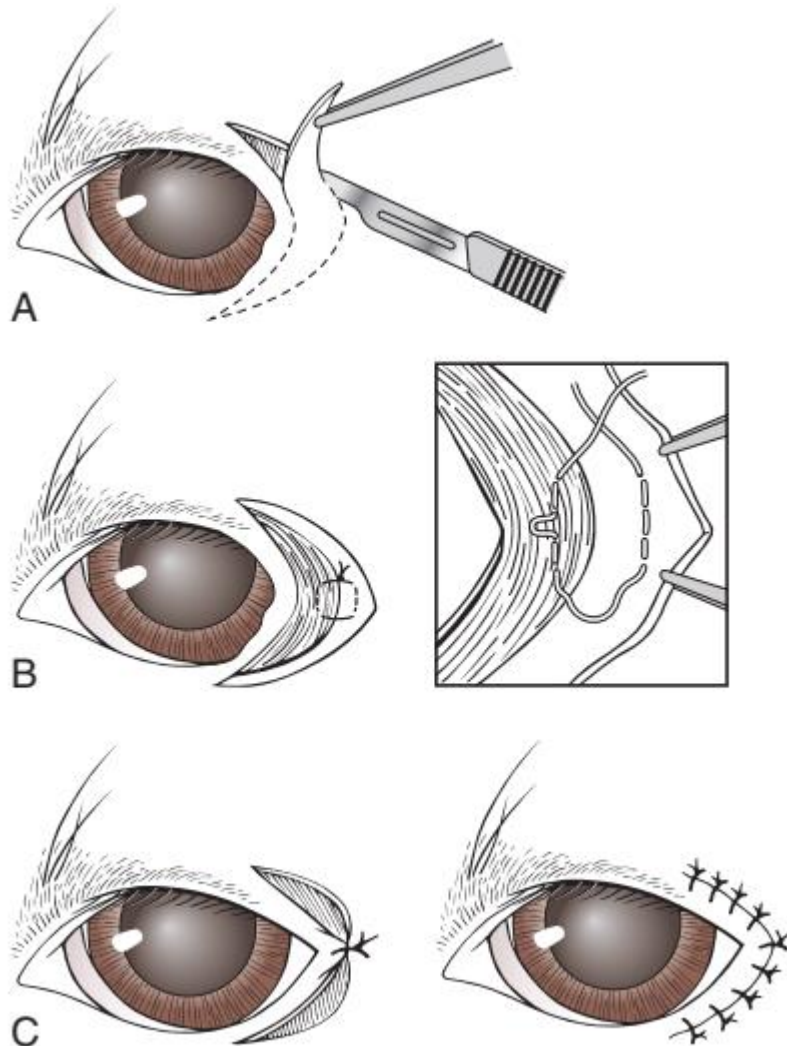
- 4- Using a No. 15 blade, incise along the length of the entropion, beginning 3 to 5 mm from the lid margin.
- 5- Make a second, crescent-shaped skin incision a distance from the first incision sufficient to correct the entropion.
- 6- Remove the strip of skin; the orbicularis muscle may or may not be removed.
- 7- Retain the conjunctiva and close the skin defect, beginning at the center with simple interrupted split-thickness 4-0 to 5-0 nonabsorbable (silk) or absorbable (Vicryl) skin sutures to allow more precise skin apposition.
- 8- Split the distance of the remaining defect when placing additional sutures, so that ultimately sutures are spaced 1.5 to 3 mm apart.
- 9- To prevent corneal irritation, cut short (2-3 mm) the suture ends that are directed toward the eye.



B- Arrowhead modification of the Hotz-Celsus procedure

is performed when lateral canthus inversion is the predominant component of the entropion.

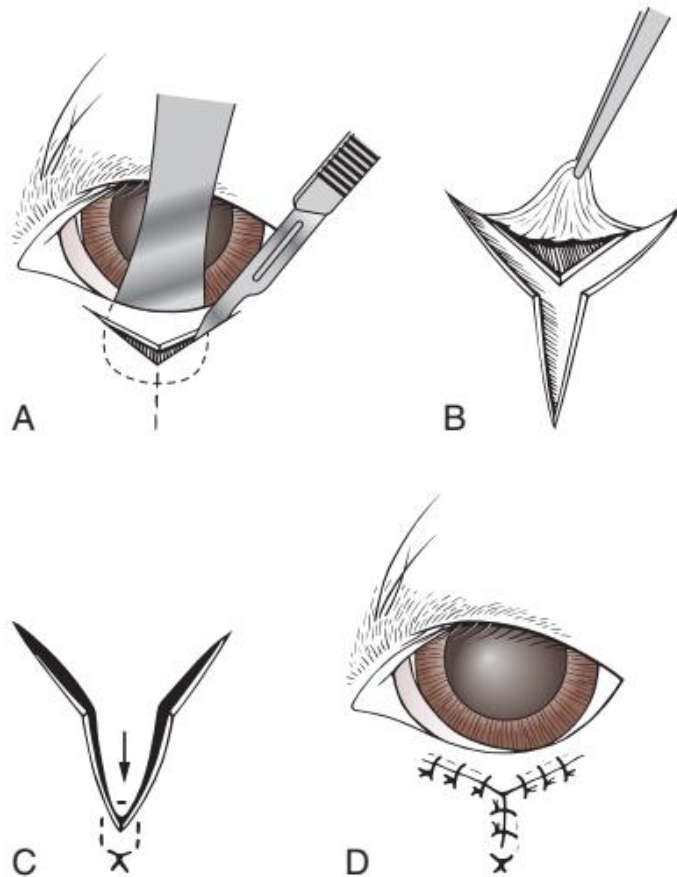
- 1- Make a V-shaped or arrowhead resection at the lateral canthus, rather than an elliptic incision.
- 2- In addition, place a subcutaneous lateral canthal tension suture to anchor and stabilize the lateral canthus in a more lateral position.
- 3- Place a horizontal mattress suture into the lateral canthal fascia and orbicularis muscle deep to the skin incision and fascia overlying the orbital ligament.
- 4- Begin skin closure at the center of the wound, and then place additional sutures 2 to 3 mm apart.



C-Y-to-V Technique.

This technique is recommended for cicatricial entropion..

- 1- Place an eyelid plate or a sterile tongue depressor into the lower conjunctival fornix for support.
- 2- Make a Y-shaped incision, with the arms of the Y extending just beyond the affected segment of the eyelid.
- 3- Determine the length of the stem of the Y incision by applying traction to the skin flap until the eyelid margin is in a normal position.
- 4- Undermine the skin flap, resecting any scar tissue present, then suture the point of the flap to the most distal aspect of the incision.
- 5- Appose the remainder of the skin with approximating sutures (4-0 to 5-0 absorbable Vicryl or nonabsorbable silk).



Complications

- 1- undercorrection or overcorrection.
- 2- Corneal damage .
- 3- Damage to lower lacrimal punctum and canaliculus.
- 4- wound dehiscence.