ADRENALECTOMY

ORDER CODE: ADREX
SPECIES: Rat, Mouse
DIET SUPPLEMENT: 1% saline as drinking water

This procedure involves the complete removal of both adrenal glands, cortex and medulla. As a result, the animal's fat metabolism is altered. Their ability to store and use glucose will be impaired. Plus, the ability to maintain certain electrolyte levels and normal hydration may be altered as well. Therefore, this animal model is useful for a wide range of metabolic studies, including hormone metabolism, obesity and drug metabolism. The model is used frequently in endocrinology and neurologic research.

Surgical Procedure

The animal is prepared for surgery using pre-operative and anesthetic procedures as described in our *Surgical Capabilities Reference Paper,* Vol. 13, No.1, 2005. A midline skin incision is made from the 1st to 3rd lumbar vertebra. The muscle wall is entered with a pair of blunt forceps lateral to the spine on each side. The left adrenal gland is located lateral to the spleen on the anterior pole of the left kidney. The right adrenal gland is located cranial to the right kidney and in close proximity to the vena cava. Both adrenal glands, together with their fat pads, are lifted out of the incision and excised. The periadrenal abdominal fat is placed back into the abdominal cavity. The skin incision is closed using wound clips.

IACUC

Charles River's Institutional Animal Care and Use Committee (IACUC) governs the entire surgical process, including any post-operative holding in CRL facilities prior to shipment. The receiving institution's Animal Care and Use Committee, investigators, and animal care staff are responsible for the well-being of the animal subsequent to its arrival. Justification for use of surgically-modified animals, review of experimental protocols, authorization to order animals that are surgically modified from Charles River, and all aspects concerning the use of surgically-modified animals after they arrive at the institution are the responsibility of the receiving institution's IACUC.

April 2000