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PITUITARY SURGERY

*This information has been provided by Prof. D'Urso to acquaint you and your family with a procedure called transsphenoidal surgery. This is a procedure for removing tumors of the **pituitary** gland in the brain. The term "transsphenoidal" means through the sphenoid, a sinus through which the surgeon will gain access to the **pituitary** gland. Tumors of the **pituitary** gland can be partly or completely removed by this type of surgery.*

Are there risks from transsphenoidal surgery?

This operation, like all **surgical** procedures, has risks. Among the most common risks are infection of the brain lining (meningitis), heavy bleeding from the incision, and a reaction to the anaesthesia. Other risks include leakage of cerebrospinal fluid from the brain and problems with fluid balance, such as "diabetes insipidus" (DI) and "syndrome of inappropriate secretion of antidiuretic hormone" (SIADH). These complications are treatable.

What happens before the operation?

- Prof. D'Urso and your anesthetist will visit you to discuss the surgery and answer your questions. Once you understand what will happen, you will be asked to sign a consent form.
- You will also be encouraged to practice breathing through your mouth. Because your nostrils will be temporarily blocked after surgery, you must be comfortable breathing through your mouth.
- Your nurse will also show you how to do gentle exercises to promote blood circulation and prevent blood clots.
- The night before surgery, you will not be allowed to eat or drink.
- The morning of surgery, you will also be given support stockings to put on.
- You may ask your nurse to show you the post-surgical **patient care** unit so that you will know your surroundings after surgery.

What happens during the operation?

- You will be placed under general anesthesia. This means that you will be given an anesthetic that will keep you asleep during the operation. Your head will be placed in a headrest to keep it still during surgery.

Understanding Transsphenoidal Surgery

- Prof. D'Urso will make an incision in your right nostril. The bottom of the **pituitary** chamber will be entered through the base of the nose and the sphenoid sinus. Part of the **pituitary** chamber will be removed so that Prof. D'Urso can see the **pituitary** gland.
- The tissue covering the **pituitary** gland will be cut open. Prof. D'Urso will remove the tumor

with special instruments. When the tumor is taken out, the bottom of the pituitary chamber will be replaced with pieces of bone that were removed earlier in the procedure. The incision will be closed, and your nostrils will be packed with gauze. The tumor will then be sent to the laboratory for examination.

A fat graft

Usually a small piece of fat will be taken from your abdomen and packed into the pituitary chamber. This is done to prevent brain fluid from leaking.

What happens after the operation?

Immediately after surgery, you will be taken to the recovery room. You will be monitored closely until you are ready to be taken to your **patient care** unit. You will stay on the unit for 2 to 5 days.

Your bed position after surgery

The head of your bed will be slightly raised (30 degrees) to promote blood flow from your head and decrease the fluid pressure in your head. If you have a spinal drain in place, you will lie flat.

Nasal packing

Both your nostrils will be packed for 1 to 3 days after surgery. You will breathe through your mouth while your nostrils are packed. Because your lips will probably become dry, your nurse will give you a soothing gel for them. You will also be thirsty. Most patients say that the nasal packing is uncomfortable, and may cause a headache. Be sure to ask your nurse for pain medication. When the packing is removed, there will be some bleeding and drainage from your nose. Your nurse will place a small piece of gauze under your nose to collect this discharge. The discharge should stop in a few days.

Incisions

The incision that was made in the nostril will be closed with stitches. These stitches will dissolve in 7 to 10 days. If you had a fat graft, there will be a small gauze dressing over the site on your abdomen from which the fat was taken.

Urinary catheter

During surgery, a urinary catheter may be placed in your bladder to drain your urine. This catheter will stay in place for about 1 to 2 days after surgery.

Lumbar drain

Sometimes after surgery, the surgeon will insert a tube in your lower back. This tube, called a "lumbar drain," is not usually needed. It may be used, though, to allow fluid to flow away from the incision so that it can heal. If it is used, this drain will stay in place for 3 to 5 days after surgery. You must lie flat in bed if you have this drain, but you may turn side to side.

Diabetes insipidus

Diabetes insipidus is a condition that occurs when your **pituitary** gland does not secrete

enough ADH (antidiuretic hormone). This hormone regulates your urine output. Diabetes insipidus may occur as a result of the **pituitary** gland being disturbed during surgery. The three signs of diabetes insipidus are the following:

- increased urine output
- light yellow urine
- increased thirst

If you have these signs, report them to your nurse. Diabetes insipidus caused by surgery is temporary and treatable.

Activity

After surgery, be careful about doing certain types of physical activities. It is especially important not to cough, blow or pick your nose, sneeze, bend over, or strain for at least 1 month after surgery. Following are some activities and when you will be able to do them after surgery.

Closing notes

Remember to be **patient** with yourself and to focus on positive thinking during recovery. You play a large part in helping to assure your well-being after surgery. If you have questions about transsphenoidal surgery, please feel free to speak with Prof. D'Urso.

Activity - Time Restrictions

- bending below the level of the knee - 4 weeks
- sneezing, coughing, blowing nose - 4 weeks
- aerobics, swimming, other exercise - 4 weeks
- wearing dentures/partial plate - 2 weeks (*or when comfortable*)
- returning to work - 3 to 6 weeks
- showering, washing hair - no restriction
- wearing contact lenses - no restriction