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EMPTY SELLA SYNDROME

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ABSTRACT

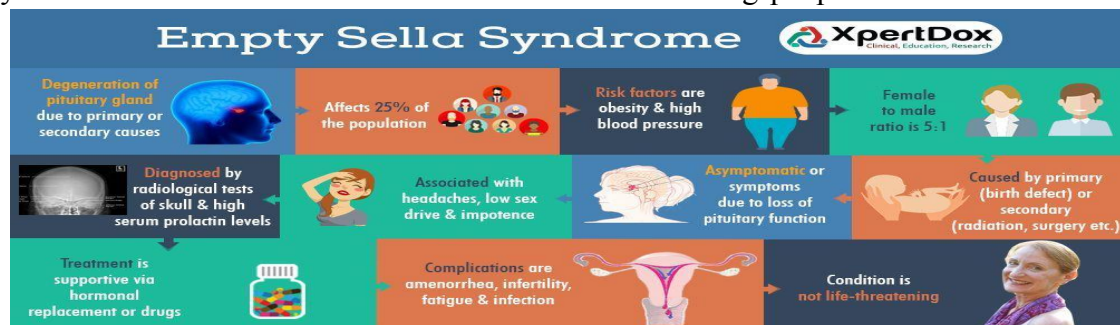
Empty Sella Syndrome (ESS) is a condition where the pituitary gland is partially or totally absent from the pituitary fossa. It can be asymptomatic in most cases and found accidentally in imaging studies of brain. In symptomatic cases it presents with endocrine abnormalities due to pituitary damage, e.g. visual defect from compression of optic chiasma, neuropsychiatric symptoms, benign intracranial hypertension, CSF leakage from the nose, and headache.

KEY WORDS: Empty sella syndrome, psychosis, learning abilities, neurological symptoms.

INTRODUCTION

Within your skull, there's a small, bony nook at the base of your brain that holds and protects your pituitary gland (which controls how hormones work in your body). This tiny structure is called the sella turcica. In a small number of people, the sella turcica is shaped in such a way that spinal fluid can leak into it. The buildup of spinal fluid squashes the pituitary gland flat, so it looks like your sella turcica is empty head injury. Women are more likely to have ESS than men. It's also more common among people who are obese or have high

blood pressure.



DEFINITION

Empty Sella Syndrome (ESS) is a disorder that involves the *sella turcica*, a bony structure at the base of the brain that surrounds and protects the pituitary gland. ESS is often discovered during radiological imaging tests for pituitary disorders. ESS occurs in up to 25 percent of the population.

CAUSES

- ✓ Primary empty sella (PES) happens when one of the layers (arachnoid) covering the outside of your brain bulges down into the sella turcica and presses on your pituitary gland.
- ✓ Secondary empty sella (SES) happens when your pituitary gland or the sella turcica is somehow damaged as a result of another condition or incident. For this reason, many things can cause SES. The general causes of damage include:
 - A tumor.
 - Radiation therapy.
 - Brain surgery in the region of the pituitary gland.
 - Head trauma (injury), such as a traumatic brain injury.



TYPES

- Primary empty sella (PES) means that your provider can't identify the underlying cause of your flattened pituitary gland. In other words, it doesn't usually cause symptoms.
- Secondary empty sella (SES) is caused by an identifiable underlying condition that changes the anatomy of your pituitary gland and/or the sella turcica. This is usually due to some kind of damage as a result of a condition or incident.

SYMPTOMS

Most people who have ESS don't have any signs of it. Some doctors think that fewer than 1% of people who have it have symptoms or problems because of it. When people do have symptoms, these are the most common:

- Headaches



- Impotence (in men)
- Infertility

DIAGNOSIS

If you have symptoms of ESS, your doctor will ask about your medical history and recommend an imaging test of your brain to see if your sella turcica looks empty. These scans might include:

- Magnetic resonance imaging (MRI) scan: This uses powerful magnets and radio waves to make detailed pictures of the inside of your brain.
- Computerized tomography (CT) scan: Your doctor will take X-rays of your head from several angles and put them together to make a more complete picture.

PROGNOSIS

ESS is not a life-threatening condition. Most often, and particularly among those with primary ESS, the disorder does not cause health problems and does not affect life expectancy.

TREATMENT

Unless the syndrome results in other medical problems, treatment for endocrine dysfunction associated with pituitary malfunction is symptomatic and supportive. If you have ESS but it's not causing any issues for you, you probably won't need treatment. If you do have symptoms, your doctor may offer:

- **Medicine.** If your pituitary gland isn't putting out the right amounts of hormones, your doctor may give you drugs to help fix that.
- **Surgery.** If spinal fluid is leaking from your nose, a doctor may do surgery to keep that from happening.

CONCLUSION

Schizophrenia is a polygenic, multifactorial disorder that can have associated other genetic anomalies. Empty sella turcica is a radiological finding and mostly asymptomatic. However in symptomatic cases, symptoms may be due to developmental abnormalities or due to physiological effect of displaced or absent pituitary or compression effect of pituitary.

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