

DISQUIET DISCHARGE: GALACTORROHEA**Ms. N. Apsara, M.Sc Nursing * | Prof. (Dr.) Maria Therese, M.Sc (N), PhD (N) ****** Department of MSN, Mother Theresa Post Graduate and Research Institute of Health Sciences (MTPG & RIHS), Puducherry**** Professor, Department of MSN, Mother Theresa Post Graduate and Research Institute of Health Sciences (MTPG & RIHS), Puducherry***Abstract**

Galactorrhoea is commonly caused by hyperprolactinaemia, especially when it is associated with amenorrhoea. Hyperprolactinaemia is most often induced by medication or associated with pituitary adenomas. Inhibition of PIF includes Stress Jog & run, Thoracotomy scars, Drugs, Chronic renal failure, CNS disease, Pituitary stalk lesions, Stimulation of PRF, Hypothyroidism, Increased prolactin production, Pituitary tumour, Non pituitary tumor, Idiopathic. Synthesis and secretion of pituitary is under the control of hypothalamus by releasing inhibitory hormones. Hypothalamic TRH acts as the releasing hormone whereas hypothalamic dopamine acts as an inhibitory hormone and inhibition by dopamine is type of dominant control mechanism. Computed tomography (CT) or magnetic resonance imaging (MRI) is done to search for a prolactinoma or other tumour near the pituitary. If a prolactinoma is large, imaging studies, by an ophthalmologist test the person's visual fields for possible effects on vision. Testing may include, physical examination and investigation includes thyroid-stimulating hormone (TSH) level, Prolactin level in the blood, Computed tomography (CT) or magnetic resonance imaging (MRI). Drugs to block prolactin production and sometimes surgery or radiation therapy are needed.

Key words: *Disquiet discharge, Galactorrohea, magnetic resonance imaging.*

INTRODUCTION

Galactorrhoea is commonly caused by hyperprolactinaemia, especially when it is associated with amenorrhoea. Hyperprolactinaemia is most often induced by medication or associated with pituitary adenomas. The incidence is variable, but it can occur in up to 90 percent of women with hyperprolactinaemia. Less common causes of galactorrhoea include hypothyroidism, renal insufficiency, pregnancy, and nipple stimulation. After pathologic nipple discharge is ruled out, patients with galactorrhoea should be evaluated by measurement of their prolactin level. It is often accompanied by menstrual disturbance and infertility. The management of these condition is done with radiological and radiochemical technique.

CAUSES

Inhibition of PIF includes Stress Jog & run, Thoracotomy scars, Drugs, Chronic renal failure, CNS disease, Pituitary stalk lesions, Stimulation of PRF, Hypothyroidism, Increased prolactin production, Pituitary tumour, Non pituitary tumor, Idiopathic.

DRUGS

The most common causes of galactorrhoea are metaclopramide & phenothiazines and Estrogens & drugs that increase oestrogen OCP like Digitalis, Marijuana and Heroin

II. Dopamine receptor blockers Phenothiazines, Haloperidol, Metaclopramide, Isoniazide

III. CNS dopamine depleters, Psychoactive: Tricyclic antidepressant, phenothiazines, Benzodiazepins & Anti hypertensive: Reserpin, Methyldopa, verapamil , cimetidine

PHYSIOLOGY OF PROLACTIN SECRETION

Prolactin is a peptide hormone secreted by anterior pituitary and is critical for lactation and breast development in women. Prolactin is synthesised and secreted by lactotropes of the anterior pituitary. Synthesis and secretion of pituitary is under the control of hypothalamus by releasing inhibitory hormones. Hypothalamic TRH acts as the releasing hormone whereas hypothalamic dopamine acts as an inhibitory hormone and inhibition by dopamine is type of dominant control mechanism. Prolactin secretion appears to be under negative feedback control as high levels of prolactin induce hypothalamic secretion of dopamine. Action of prolactin includes breast development, lactation and inhibition of ovulation

DIAGNOSIS

Finding the underlying cause of galactorrhoea is complex task because there can be a many possibilities. Testing may involve: A physical exam, during which your doctor may try to express some of the fluid from your nipple by gently examining the area around your nipple. And investigation includes thyroid-stimulating hormone (TSH) level and Prolactin level in the blood.

Computed tomography (CT) or magnetic resonance imaging (MRI) is done to search for a prolactinoma or other tumour near the pituitary. If a prolactinoma is large, imaging studies, by an ophthalmologist test the person's visual fields for possible effects on vision

TREATMENT

- Drugs to block prolactin production
- Sometimes surgery or radiation therapy

Drugs can be given that mimic dopamine, the chemical in the brain that blocks prolactin production. They include bromocriptine and cabergoline. These drugs and are effective only as long as they are taken by mouth, as they seldom result in cure of the tumour.

In most people, these drugs lower prolactin levels enough to restore menstrual periods, stop galactorrhoea (in women and men), and increase oestrogen levels in women and testosterone levels in man.

- I. Idiopathic (normal PRL) Observation: Dopamine agonist (anxiety, pregnancy). Stop during pregnancy
- II. Hypothyroidism: Eltroxin
- III. Microadenoma Observation: Annual PRL. Dopamine agonist (anxiety, pregnancy). Stop after 2-3 yr. Surgery (rapid growth). Transsphenoidal microsurgery is very safe, but recurrence is high (Sperof,1999)
- IV. Macroadenoma: Dopamine agonist: long term. Surgery (No response, suprasellar extension, pregnancy) Preoperative bromocriptine may result in fibrosis.

DISCUSSION

Galactorrhoea is commonly caused by hyperprolactinemia, especially when it is associated with amenorrhea. Hyperprolactinemia is most often induced by medication or associated with pituitary adenomas. Causes include inhibition of PIF, Stimulation of PRF and Increased prolactin production. The most common causes of galactorrhoea are phenothiazines and Oestrogens & drugs that increase oestrogen OCP like Digitalis, Marijuana and Heroin. Prolactin is a peptide hormone secreted by anterior pituitary and is critical for lactation and breast development in women. Prolactin is synthesised and secreted by lactotropes of the anterior pituitary. Finding the underlying cause of galactorrhoea is complex task because there can be a many possibilities. Testing may include, physical examination and investigation includes thyroid-stimulating hormone (TSH) level, Prolactin level in the blood, Computed tomography (CT) or magnetic resonance imaging (MRI). Drugs to block prolactin production and sometimes surgery or radiation therapy are needed.

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