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## Studies on Albino rat ovary under drugs addiction

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### Abstract

A Substance used to treat a disease is called drug. The drug which cause narcotic addiction is called drugs. Most frequently used drugs are (1)Morphine (2) Cocaine (3) Heroine (4) Hashes (5) Ganja (6) Opium (7) Marijuana (8) LSD etc. The opium a narcotic is used as drug to get rid from mental anxieties and to kill the pain killer but an active ingredient of it becomes dangerous making the person unsocial and unhealthy. The present study deals with the effects of opium on the ovary of Albino rat. The experimental rats were orally fed with opium of constant dose i.e.1.38g/kg body weight for 10&15days gradual reduction in the number & size of ovarian follicles as well as oocytes nil in follicles. Therefore opium addiction is dangerous for animal health. It absurd and damaged vital organ in animal body.

**Keywords:** Drugs, Opium, Albino Rat, Ovary, Ovarian Follicles

### Introduction

Health is wealth, free from Sickness and diseases are first condition of good health. Unhygienic habits of individual persons can create problems for the whole community. The use of narcotic drugs are also bad habits which should be avoided for keeping good health. Good health increases our efficiency for doing work. This condition contributes own progress. Community progress and nation progress.

In Punjab, Haryana give up the opium with tea to farming laborer for excess work. Laborer become opium addicted. When he back native village (in Bihar) her nature are unsocial and unhealthy.

Opium is obtained from a plant known as *Papaver somniferum* it relieves pain, suppresses cough but cause addiction and respiratory depression. The work will be helpful in exploring the histological changes in the ovary of opium addicted rates very scanty information is available as regards to effects of opium to albino rat like Alarcon (1969), Atweh & kumar (1983), Naik & kar (1983) <sup>[10]</sup>, Ball & Snarr (1969) Hill *et al.* (1993) Arti & Akela (1993) <sup>[11]</sup>, Akela & Arti (1994) <sup>[11]</sup>, Arti & Akela (1996) <sup>[11]</sup>, Revati *et al.* (2003). Shipra *et al* (2005) Aruna *et al* (2007) <sup>[4]</sup>.

### Materials and Method

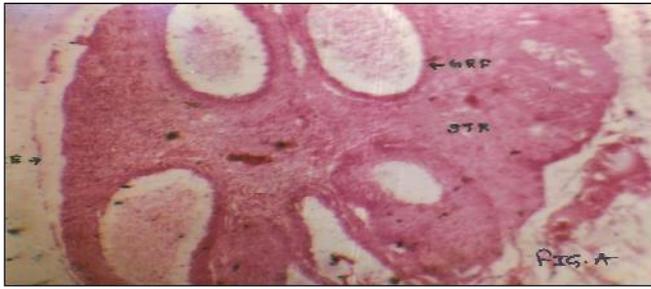
The healthy adult female Albino rat of equal weight and age were selected for experiments after proper acclimatization to Laboratory condition. The albino rats were divided into two groups. Group-(1) the rats kept as control were fed with normal pillet diet. Group-(2) the second group of rats were orally feed with opium of constant dose i.e. 1.38g/kg body weight for 10&15 days. At the end of exposure period (10&15 days) the rat of both control and experimental groups were weighed and dissected in ringer's saline. The ovary was quickly taken out weight to the nearest milligrams and fixed in aqueous bouins carnoy and 10% neutral formation fixatives after proper washing dehydration and cleansing the tissue were embedded in paraffin wax. Serial section of 6 micro meter were cut and stained with haematoxylin and eosin.

The selected slide were process for routine histological examination.

### Result and Discussion

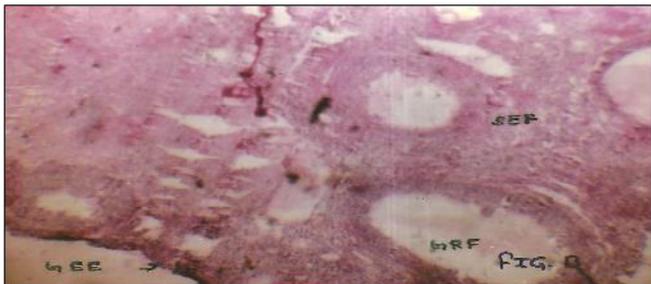
In control rat ovary is surrounded by germinal epithelial cells and anterior occupied by means of stroma. In the stroma the ovum remained in different development stages viz. Primary follicle, secondary follicle and graffian follicular stage.

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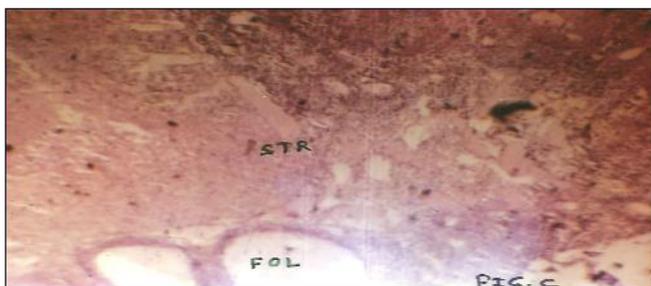
**Fig 1:** T.S of ovary of control albino rat.  
GRF: Germinal follicle  
GEC: General epithelium cells

Under 10 days opium addicted rat showed reduction in the number of primary and secondary follicles and germ cells



**Fig 2:** T.S of ovary of 10 days addicted albino rat.  
SEF: Secondary follicle.  
GRF: Germinal follicle.  
GEC: General epithelium cells.

Under 15 days opium addiction showed reduction in the size of secondary follicles. Evacuation of graffian follicies absent of oocyte.



**Fig 3:** T.S of ovary of 15 days addicted albino rat.  
FOL: Follicle  
STR: Stroma

In the present study under opium addicted rat led to gradual reduction in the number & size of ovarian follicles at all the stages. The follicles were found to devoid of oocytes showing adverse effect on oogenesis. Present findings are conformity with spicer *et al.* reported cytokinin regulation of ovariom follicle function. Recent studies have should that defence mechanisms can be influenced by substances produced by cells involved in immune response. (Balk win & Burk)

Oda *et al.* reported the effect of osmotic shock on fertilized ova of mouse. They observed that 85% or more of the ova survival exposure to this wide range of concentrations & developed into blastocysts.

Michael *et al.* studied circulating levels of follistatin from puberty to menopause & reported that mean rollistatin levels did not chage during puberty but were higher in adult &

post-menopausal women. Level of Immunol reactive follistation in men were lower than levels found in normal cycling women & post-menopausal women.

### Conclusion

Opium addiction is dangerous for animal health. It absurd and damaged vital organ in animal body.

### Acknowledgement

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