

## P-4 Dose Dependent Effects of Morindae Officinalis Radix Extract Solution on the Reproductive Capacities in the Mice

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**Background & Objectives:** These studies were undertaken to evaluate the effects of the administration of different concentrated Morindae officinalis Radix extract solution on the spermatogenic abilities such as concentration, motility and morphological normality of sperm from the testis and the activities of sperm hyaluronidase, testicular peroxidase and testicular catalase.

**Method:** We used the 2-month-old mice and administered the extract solution of Morindae officinalis Radix in the different concentration once a day for 60 days. The control group was administered the normal saline in the same way and duration. We examined the number of total, motile and normal sperm from the cauda epididymis, the activities of sperm hyaluronidase, testicular peroxidase and testicular catalase. Also we observed changes of isolated testis before and after administration of Morindae officinalis Radix extract solutions in the mice. And we compared to the testicular tissue especially seminiferous tubules between control and treated group by histochemical methods.

**Results:** The significant dose-dependent differences were observed in the concentration of total sperm, the motility and normality of spermatozoa of the Morindae officinalis Radix extract solution administered groups compared to the control group, respectively. In the histological analysis of the testicular tissues, the enlargement of testicular lobe diameter and apparent vasculogenesis between testicular lobes were observed in the Morindae officinalis Radix extract solution administered groups compared to the control group, respectively. Also, the activity of hyaluronidase was significantly increased in the Morindae officinalis Radix extract solution administered groups compared to the control group. In the antioxidant activity analysis, the activity of testicular peroxidase was significantly increased in the Morindae officinalis Radix extract solution administered groups compared to the control group, respectively.

**Conclusions:** This study shows that Morindae officinalis Radix has the beneficial effect on the concentration, morphology and motility of sperm, the activities of sperm hyaluronidase and testicular peroxidase. We can suggest that Morindae officinalis Radix extract solution be useful for the treatment of male sexual dysfunctions and infertility.

## P-5 Effects of Isolating Methods (Mechanical or Enzymatical) on Structure of Pre-antral Follicles in Mouse

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**Background & Objectives:** This study was conducted to evaluate the stable and effective isolating