

**MEASUREMENT OF ZN IN FOLLICULAR FLUID SUPPLEMENTATION OF SOWS FOR MEDIA AND OOCYTES CULTURES. (ANIMAL MODEL FOR IMPLEMENTATION IN HUMANS)**

BARAJAS SERRANO, TANYA LIZBETH<sup>1</sup>; GÓNGORA RODRÍGUEZ, ALFREDO<sup>1</sup>

<sup>1</sup>CENTRO DE FERTILIDAD HUMANA EN MÉXICO

**Abstract Body**

MEASUREMENT OF ZN IN FOLLICULAR FLUID SUPPLEMENTATION OF SOWS FOR MEDIA AND OOCYTES CULTURES.(ANIMAL MODEL FOR IMPLEMENTATION IN HUMANS)INTRODUCTIONThe practical benefit of rapid, non-invasive metabolomic profiling in IVF is the improvement of embryo selection procedures. Zn is an essential component of cellular signaling as well as being the cofactor 300 enzymes and be intrinsically linked to the dynamic functionality of the DNA.MATERIALS AND METHODSActive ovaries of 20 slaughtered females pigs, 16 of these were selected. Were classified by size F3 ≥4mm were protruding from the parenchyma 2-4 mm F2, F1<2 mm. Number of oocytes per ovary was determined and the volume was measured by rating group. The concentration of Zn was done in graphite furnace Perkim Elmer P316 ®.RESULTSThere were significant differences in the results of the concentrations of Zn in different follicles (P<0.001), the mean for the group were 28.58 ± F1 10.25 pg/μL, 46.82 ± 17.82 pg/μL group F2 and the group F3 32.87 ± 2.1 pg /μL.DISCUSSIONThe estimate we report, is a rough measure of the concentration of Zn and/or necessary for an egg to mature and be ovulated , 8,29 pg is the average amount of Zn found in F3 follicles, preovulatory these are considered reported effects are due to antagonism with Calcium that is located at the junctions of the cell clusters, if the Zn was not in appropriate concentrations these inhibit or hinder the entry of the sperm at the time of fertilization.CONCLUSIONEach maturity level has different level of Zn. Metabolomics, using various forms of analytical approaches, studying the dynamic set of small molecule metabolites and to identify and quantify which are associated with physiological and pathological states, recognizing dysfunction in response to genetic, nutritional and environmental influences biomarkers.

**Abstract image**

**Table 1. Concentration of Zn in follicles of pigs females**

GROUP	Zn CONCENTRATION (pg/μL) (Mean/SD)	VOLUME (μL) (Mean/SD)	TOTAL CONCENTRATION PER FOLLICLE (Mean/ SD)	STATISTICAL SIGNIFICANCE
F1	28,58 (10,25) <sup>c</sup>	146 (43,27) <sup>b</sup>	3,62 (0,78) <sup>c</sup>	0,001
F2	46.82 (17,82) <sup>a</sup>	189 (50,93) <sup>a</sup>	5,54 (1,35) <sup>b</sup>	0,001
F3	32,87 (11,71) <sup>b</sup>	112,27 (28,84) <sup>c</sup>	8,29 (2,1) <sup>a</sup>	0,001

\*Different literals are significantly different