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EFFECT OF GOLD NANOPARTICLES WHICH EXTRACTED FROM GREEN TEA ON SOME BLOOD PARAMETERS IN MICE

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ABSTRACT : The choice of green solvent, an environmentally friendly reduction agent, in an experiment involving a synthesis of nanoparticles from the green chemistry standpoint and Non-toxic substance for nanoparticles stability Key factors. Water is in the current procedure Used worldwide as an environmentally sound solvent Polyphenols and many phytochemicals preparation and the reduction agent used in tea both nanoparticle stabilizers and, thus, robust Agglomeration shielding. Each well has been placed in RBC solution using 96-wave U-bottom Pipet 100 µl. Afterwards, for each well, 100 µl was added from every dilution of the gold nanoparticles. To triple the positive control wells add 100µl of 1 percent SDS. For negative control wells, add 100ìl of PBS. In a CO_2 incubator, the incubators were 37°C for 12 hours, 5 percent (exposure time). After incubation for five minutes in 1000 rpsm, the centrifuge plate has erythrocytes intact in pellets. Draw 100 µl of supernatant from each well into a new 96-well plate. The effect of golden nanoparticles on the analysis of Red blood cells has been determined that there are no significant differtances between each concentration and the control and no significant differences exist between the same concentrations, indicating that no gold nanoparticles effect of Golden Nanoparticles has been determined by a wave-language microplate reader (FLUO star OPTIma). In comparison to control, where there is no decline in its percentage, as well as in PCV, the hemoglobin rate was found to be normal for all therapies. Compared to the control, its ratio is typical. In some therapies, there was a modest drop in the total number of white blood cells and in many other treatments.

Key words : Gold nanoparticles, blood parameters in mice.

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INTRODUCTION

Gold nanoparticles are minute particles of nonmetric gold. A nanometer is one billionth of a meter (Abd Elmabud *et al*, 2019). Light is less wavelength than the nanometer Gold has beautiful properties if it is in nanoscale sizes. For example, on the nano scale, the gold color changes to red, orange or even blue according to its size, shape or distance from the gold (Arvand *et al*, 2013) (Spain). The color of the golden nanoparticles varies from golden to orange if 80 nanoparticles are of their grain size and when they have smaller and 20 nanometers, the Golden Nanoparticles turn red (Switzerland *et al*, 2020). In Roman Churches for the manufacture of glass painted cups and windows, Nano particular gold was previously used (Elnaqee *et al*, 2019). Different sizes of nano-Gold have been added to embellish the glass with varying colors (Switzerland *et al*, 2019), when light passes through the glass, 20 nanometer gold particles show a red tone (Hussain *et al*, 2018). When employing gold particles of 30 nanometers in size, the pink hue appeared and the glass was adorned with orange colour (Christian *et al*, 2021). Like a result of the light flowing over nano-gold particles of varying dimensions, the Roman cups and windows radiate in various dazzling hues as above (Kim *et al*, 2013 and Kumar *et al*, 2018). In the nanogold sector, some important uses include golden nanoparticles that may be utilized for the purification of air, such as smell removal, pollution control, water purification and critical medical applications, as well as the elimination of odors and carbon monoxides from the air (Saidon, 2012 and Lacerda *et al*, 2011).

MATERIALS AND METHODS

Preparation of gold nanoparticles using green tea

The choice of green solvent, an environmentally friendly reduction agent, in an experiment involving a synthesis of nanoparticles from the green chemistry standpoint and non-toxic substance for nanoparticles with

Table 3 : ANOVA table of Effect of gold nanoparticles on some blood parameters.

Source	Type III sum of squares	df	Mean square	F	Sig.
Corrected Model	350739216.100[a]	14	25052801.150	92.843	.000
Intercept	173236752.200	1	173236752.200	641.996	.000
Concentration	4655917.467	4	1163979.367	4.314	.007
Test	336812030.500	2	168406015.300	624.094	.000
Concentration * test	9271268.133	8	1158908.517	4.295	.002
Error	8095222.667	30	269840.756		
Total	532071191.000	45			
Corrected Total	358834438.800	44			

Table 2 : Effect of gold nanoparticles on some blood parameters.

Concentration of gold nanoparticles (µg/ml)	Blood tests	Mean	Std. deviation	N
0.5	Hb	13.67	.577	3
	PCV	43.33	1.528	3
	WBC	5722.00	790.096	3
	Total	1926.33	2874.059	9
1	Hb	13.00	1.000	3
	PCV	41.00	2.000	3
	WBC	6000.00	1000.000	3
	Total	2018.00	3028.090	9
1.5	Hb	13.33	1.528	3
	PCV	38.00	3.000	3
	WBC	5800.00	1252.996	3
	Total	1950.44	2954.378	9
2	Hb	12.33	1.528	3
	PCV	42.00	.000	3
	WBC	4300.00	721.110	3
	Total	1451.44	2166.666	9
Control	Hb	15.33	.577	3
	PCV	43.67	2.082	3
	WBC	7333.33	577.350	3
	Total	2464.11	3663.329	9

synthetic antibodies so that they stick only to biomolecules (DNA), or proteins Table 3 analysis of variance for the effect of gold nanoparticles on some blood variables, including Hb, PCV, and WBC, where it was noted that there were no significant differences for the effect of gold nanoparticles on the hemoglobin percentage compared with the control, as well as there were no significant differences for the size of compact red blood cells or the number of blood cells white compared to control.

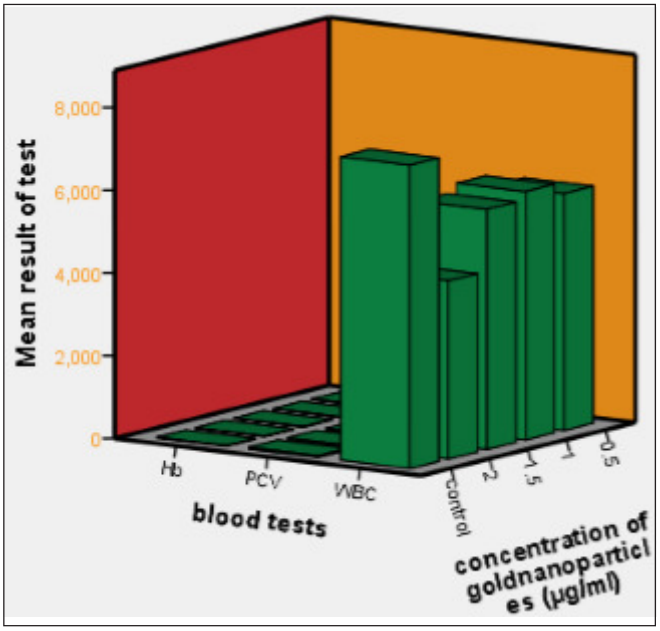

Fig. 2 : Effect of gold nanoparticles on some blood parameters.

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