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Content

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Chemicopotential study of Laboratory Liquid Waste at Sampling Outlet of Govt. MVM College Laboratory, Bhopal

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ABSTRACT
In present scenario environment is polluting through by products of man activities. Water bodies are being polluted due to discharge of laboratory chemical waste. The pollution is responsible for unclean, dirty physical, chemical or biological change that adversely affect the health, survival or activities of living organism which alters the environment in undesirable manner. Human activities produce chemical waste and pollute the activities of daily routine life in the environmental conditions. Pollution arises on the earth is due to rapid industrialization, increasing population and technological advancement, unplanned urbanization, deforestation etc. The physical toxicants include physical activities like heat, noise, radioactivity and particulate and undissociate material. Laboratory chemical include the various cations and anions present the waste water. Most naturally substances can be toxicants if their concentration in environment, increase to the level at which they cause health problems and environmental damage.Pollutants are residues of substances made, used and throw away Laboratory. Chemical toxicants may be released deliberately into the environment from the Laboratories of different production units research institutions & educational institutions liquid waste whether such releases constitute of pollution will depend on the toxic substances present in the ecosystem. The pollutants causing diseases such as the cholera bacterium which grows are spread by laboratory waste and also cause the greatest number of human illness and deaths. Chemical waste consist of harmful chemicals that is released from factories industries, college, laboratories. Chemical waste of college laboratories is usually segregated on side dispose off accordingly safety & health diseas.The organic waste solvent heated at high temperature to reduce toxicity but the inorganic waste can be heated for regular the waste product. Aqueous waste like sodium chloride can be pour thrown in the sink as they are toxic and isolated identically so they could disposed under environmental safety. The wastes of glass wares, and toxic chemicals can be real vied or disposed. The Students & teachers working in the college laboratories and perform experiments, which release a lots of hazardous materials which is either run away or flow in a nail and directly adjoin with the water flow recourses thus producing diseases, polluting the environment and disturbing the ecosystem.

INTRODUCTION

Chemical laboratory waste extremely foul of nature and consisting ionic discharge from lab outlet and present in different forms according to their surrounding which is mainly as waste as discharge from science laboratories.Various toxicity are associated with the waste handling we are likely to suffer from various diseases. Infected bones and muscles disorders occurs from handling heavy

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containers chemicals burns result from contact of small amount of poisonous chemical waste. Burns injuries can also occur from waste disposal in unsafe manner. The untreated released chemical mercury are highly toxic and exposure can lead death and diseases. Waste from laboratory can cause serious health problems when mix with the municipal waste and can expose people with chemicals hazards.The solid laboratory waste are also responsible for producing diseases and due to dumping in a water body can also contaminate the water and the accumulation toxic substances in the food chain through the plant and animals that feed it. The laboratories waste broken glass, syringes benefits, therma meter can be collected in perches registrant containers. Students who work in chemical laboratories are exposed to many kinds of hazards. Although many kinds of workplaces, laboratories have a variety of hazards as chemicals in which some hazards are seldom encountered elsewhere. The laboratories in which chemicals are used must be prepared to deal with hazardous substances In chemical manufacturing plants, laboratories usually handle only small amounts of materials, a Exposure to a particular material seldom extends over a protracted time.Students and the environment are subjected to minimal harm by the substances used or produced in the college laboratory. Both students & teachers should know and use acceptable disposal methods for various chemicals.

Methodology :

The samples of laboratory, chemical waste and there waste now from towards water reservoirs were collected and preserved as per prescribed procedure of APHA, and BIS.

Prior to this a general survey was conducted to know about other outlets and minor streams leading to probable pollution sources. Preservation of sample and pre-treatment methods were apphed was for analysis recommended by APHA and BIS. Sample will be kept for long duration may suffer change in composition because of various interactions. The optimum sample aging time range from immediate for analysis pH and temperature and DO 7 days for metals, it is therefore must be compulsory to preservation techniques for the sample, because these are essential for retarding the biological action hydrolysis and precipitation of chemical compounds and complex, and reduction of volatility of constituents available in the sample. In order to get approtoxiate results the DO was analyzed at the time of sample collection. With in 4 hours and 24 hours for others, from the time of collection.

Results and Discussions:

During the tenure of the study at sampling station MVM college Bhopal pH maximum at pre mansoon and minimum at post mansoon .Total Hardness maximum at pre mansoon and minimum at post mansoon.Ele. conductivity maximum at post mansoon and minimum at mansoon.Total solid maximum at pre mansoon and minimum at mansoon. Turbidity maximum at pre mansoon and minimum at mansoon .Amonical nitrogen maximum at post mansoon and minimum at mansoon. Nitrate maximum at post mansoon and minimum at mansoon . Phosphate maximum at post mansoon minimum at premansoon .Chloride maximum at post mansoon and minimum at pre mansoon .Sulphate maximum at post mansoon and minimum at pre mansoon .BOD maximum at pre mansoon and minimum at mansoon .COD maximum at pre mansoon and minimum at post mansoon .Amount of Cu maximum at pre mansoon and minimum at mansoon .Amount of Pb same at pre mansoon, mansoon and post mansoon .Amount of Fe same at mansoon and pre mansoon minimum at pre mansoon . amount of Cr maximum at post mansoon and minimum at pre mansoon.

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Table 1.1 Chemicopotential study of Laboratory Liquid Waste at Sampling Outlet of Govt. MVM College Laboratory, Bhopal

S.No.	Parameter	Unit	Pre Monsoon	Monsoon	Post Monsoon
1	pH		10.9	10.8	10.7
2	Total hardness	mg/l	131	113	125
3	Ele. Conductivity	µmhos/cm	284	275	316
4	Total Solid	mg/l	381	363	369
5	Turbidity	NTU	13.9	10.3	13.2
6	Ammonical Nitrogen	mg/l	641	559	737
7	Nitrate	mg/l	51	44	64
8	Phosphate	mg/l	0.2	0.3	0.4
9	Chloride	mg/l	220	260	276
10	Sulphate	mg/l	641	699	681
11	BOD	mg/l	2.5	2.1	2.3
12	COD	mg/l	12.8	10.7	8.6
13	Copper	mg/l	0.04	0.02	0.03
14	Lead	mg/l	0.02	0.02	0.02
15	Iron	mg/l	0.4	0.6	0.6
16	Chromium	mg/l	0.06	0.08	0.10

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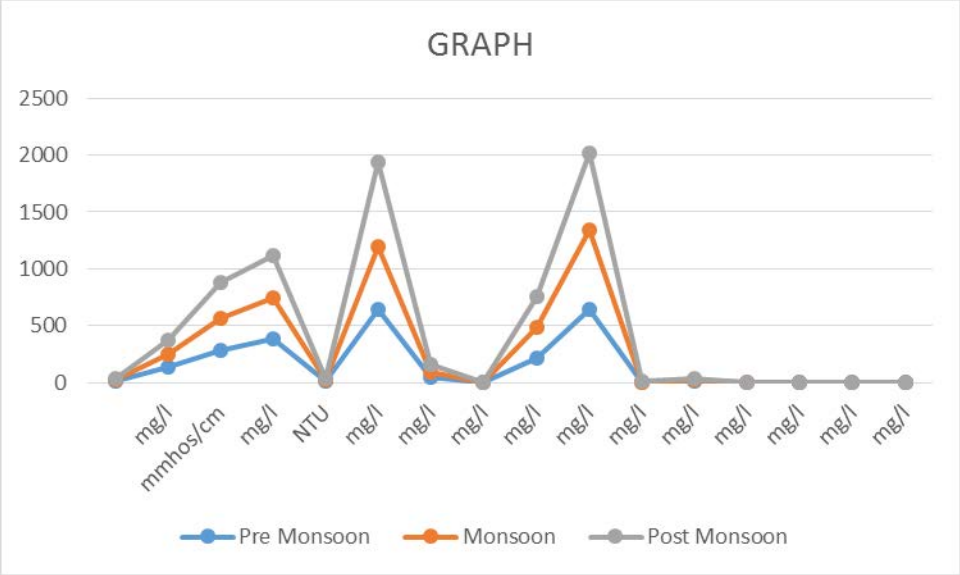

Figure1.1: Chemicopotential study of Laboratory Liquid Waste at Sampling Outlet of Govt. MVM College Laboratory, Bhopal

Conclusions & Results :

limits of BIS and APHA Rules . So it is Clear that water quality is not suitable for various porposes in the environment.Studies carried out in present investigation revealed that one of the most important causes of water pollution is disposal of untreated chemical effluents without adequate attention to suitable management of toxican Hence it is concluded that maximum parameter are found in excess than permissible.

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Effects of various Seasonal fluctuation in different Parameters Contents of Domestic Wastes Effluents at Shahpura area Bhopal.

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ABSTRACT
Domestic waste contains inorganic and organic compounds which inflict the deterioration of the water quality. Domestic effluents endanger the aquatic environment and flora and fauna. Domestic waste contains toxic and hazardous compounds. When partially treated or untreated effluent discharges into water reservoir the toxic compounds comes in water sources which are undesirable because these have poisonous characters and create aesthetic problems.

INTRODUCTION

Domestic waste extremely foul of nature and consisting sludge discharge materials from house hold outlets and present in different forms according to their surrounding which is mainly as waste as discharge from kitchens, bathroom laboratories, public area, and water dispensed to the community the liquid waste of municipalities sewage also contains imposed burden of human excrement chemical toxicants and oxygen holding ions Domestic waste also contains Organic matter and Hazard pollutants. Domestic wastes also contain solid matter of organic and inorganic compounds which is derived from urine, protein, fats, amino acids, soap etc.

Methodology:

Samples were collected on monthly basis the standard method as prescribed by APHA and BIS, EPA were followed during collection, preservation and analysis of samples.

Results and discussion:

During the tenure of the study at sampling station upper Lake at Bhopal pH maximum at pre Mansoon and minimum at Mansoon. Conductivity maximum at Mansoon and minimum at pre Mansoon. Turbidity, maximum at Mansoon and minimum at pre Mansoon. Total solids maximum at Mansoon and minimum at post Mansoon. Total dissolved solids maximum at Mansoon and minimum at post Mansoon. Total suspended solid maximum at Mansoon and minimum at pre Mansoon. Total nitrogen maximum at post Mansoon and minimum at pre Mansoon. Sulphate maximum at post Mansoon and minimum at Mansoon. Chloride maximum at post Mansoon and minimum at Mansoon. Total Hardness maximum at pre Mansoon and minimum at Mansoon Nitrate maximum at Mansoon and minimum at Pre Mansoon BOD maximum at Mansoon and minimum at pre Mansoon. COD maximum at Mansoon and minimum at post Mansoon. Amount of Pb same at pre and mansoon and minimum at post Mansoon. Amount of Zn maximum at Mansoon and minimum at Post Mansoon. Amount of Cr maximum at pre mansoon and minimum at mansoon. Amount of Cu maximum at mansoon and minimum at premansoon. Amount of Cd maximum at post mansoon and minimum at mansoon.

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Table 1.1 : Effects of various Seasonal fluctuation in different Parameters Contents of Domestic Wastes Effluents at Shahpura area Bhopal.

S. No.	PARAMETER	UNIT	PRE MONSOON	MONSOON	POST MONSOON
1	pH	-	11.1	8.9	9
2	Conductivity	µMhos/Cm	1.6	2.39	1.81
3	Turbidity	NTU	140.8	685.3	258.5
4	Total Solids	mg/l	1355	1483	1364
5	Total Dissolved Solids	mg/l	946	1036	925
6	Total Suspended Solids	mg/l	409	448	439
7	Total Nitrogen	mg/l	622.2	764.8	990.2
8	Sulphate	mg/l	475.6	454.7	979
9	Chloride	mg/l	1405	1102	2179
10	Total Hardness	mg/l	1789	1486	1704
11	Nitrate	mg/l	49	65.3	58.1
12	BOD	mg/l	45.2	68.3	52
13	COD	mg/l	488.3	616	392
14	Lead	mg/l	0.13	0.13	0.1
15	Zinc	mg/l	24.1	26.4	23.6
16	Chromium	mg/l	0.14	0.06	0.09
17	Copper	mg/l	2.33	2.59	2.38
18	Cadmium	mg/l	0.107	0.048	2.202

Figure 1.1

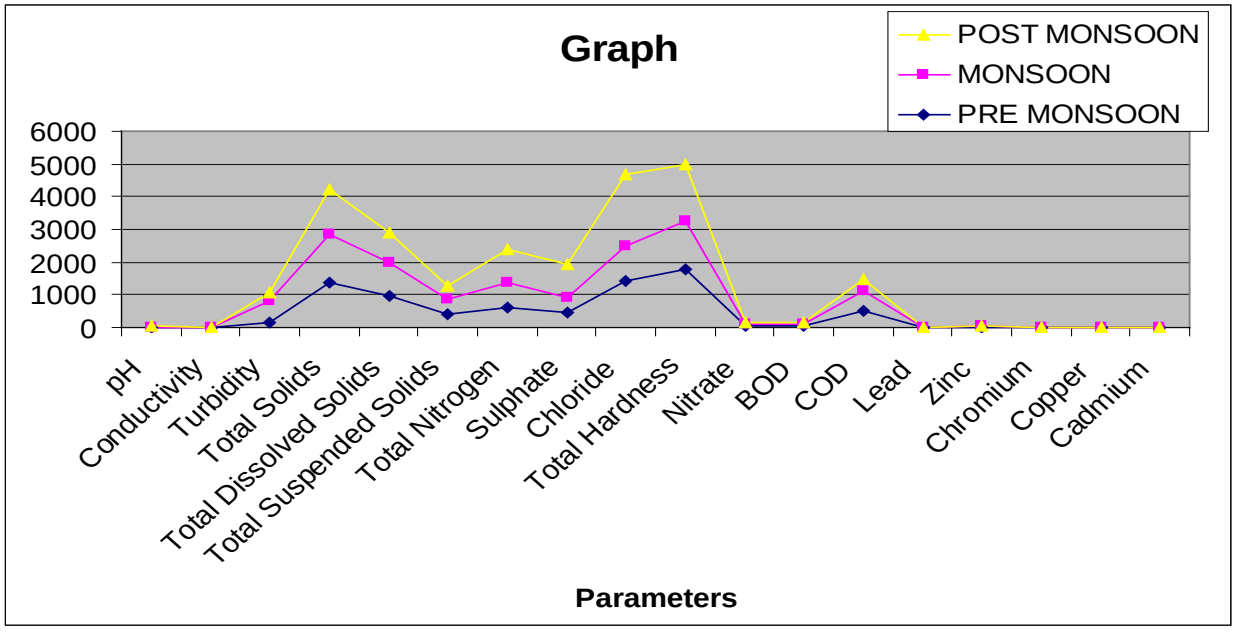

Figure 1.1 : Effects of various Seasonal fluctuation in different Parameters Contents of Domestic Wastes Effluents at Shahpura area Bhopal.

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Conclusions and Results

: Hence it is concluded that maximum parameters are found in excess than permissible limits of BIS and APHA Rules. So it is clear the water quality is not suitable for various purposes in the environment.

In general the surface water of upper lake has shown higher values of the parameters Studies carried out in present investigation revealed that one of the most important causes of water pollution is unplanned urban development without adequate attention to suitable management of sewage and waste material. It is therefore, recommended that this water supply from upper lake should be used as drinking water only treatment.

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Impact of organophosphorus and chlorinated pesticides Malathion and Endrin some Physio-biological and haematological parameters of Notopterus notopterus (Pallas, 1769) exposed to mixture of 0.1 ppm

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ABSTRACT
During the present experiment, *Notopterus notopterus* were exposed to lethal concentration (0.1 ppm) of malathion and parathion for a period of 60 min in triplicates. A marked reduction in the opercular beat frequency (90.5 to 39.0) and tail beat frequency (7.2 to 3.2) was observed at the end of 60 min. exposure time. The results on the haematological aspect of the experiment (5 replicas) revealed significant ($P < 0.05$) increase in WBC (6.06 to 7.8), and decrease in Hb, RBC, MCH, MCHC and other non-specific defence cells. The increase in the WBC count is due to the non-specific immune response of the fish.

INTRODUCTION

The application of various pollutants such as pesticides, heavy metals and other chemicals etc. In the aquatic environment and their deposition in the biotic system is known to cause several structural and functional changes in the biota. On the other hands, role of pesticides in promoting our health and economy are closely related. Pesticides have brought tremendous benefits to mankind by increasing food production and controlling the vectors of man and animal discuss.

Today, water quality management faces greater problems than at any time in its history. In addition to natural pollutants, varied contaminants exist in surface waters including multiple chemical compounds and different products of industrial and agricultural revolution. The insecticides constitute one group of these pollutants, both synthetic and natural, which contribute to the environmental problems. At present, it seems that the problem is more conspicuous in developing countries**, (Begum, 2005; Ogueji et al., 2007; Saravanan et al., 2011)**. Recently the various pesticides, herbicides, weedicides, insecticides, organophosphate pesticide used in the agriculture field for prevention of the insect pest. Unfortunately, application of these synthetic derivatives of pyrethrins is highly toxic to a number of non-targets organisms such as bees, freshwater fish and other aquatic organism even at very low concentration

Indiscriminate discharge of these pesticides from agriculture runoff and in aquaculture operation may be washed into nearby water bodies and affects non-target organism such as fish and prawn which are of economics importance to humans **(Adhikari et al., 2004)**. Among the aquatic animals fish are highly sensitive to the pyrethroids pesticides due to their neurotoxic effects and the pesticides are lethal to fish at minimum concentration. The use of haematological technique in fish culture is growing in importance for toxicological research, environmental monitoring and fish health conditions. Many works has been conducted on haematological changes of pesticides in the fish such as **Das and Mukherjee (2000), Adebayo (et al., 2005), Patnaik and Patra (2006) Sampath (et al., 1993)** noted that there is a possibility that studies on fish blood might reveal conditions within the body

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of the fish long before there is any outward manifestation of disease or disorder.

Materials and methods:

Original healthy Notopterus notopterus (Pallas) fish weighting 150-170 gm with a mean body length of 24-26cm were acclimatized for two weeks prior to experimentation. The fishes were fed with balanced diet/pelleted feed with 35 % crude protein diet at 2 % biomass. Malathion) and Endrin both are manufactured by Shivalic Agro Chemical Industries. The lethal concentration (0.1 ppm) of the pesticide was prepared by dissolving 1 ml of original concentration of pesticide individually in 10 liter of chlorine free water. 30 L of the diluent water was used as control.

Opercular beat frequency (OBF) was calculated by observing the opercular beats before and after the exposure to assess the impact of pesticides on the physiological requirement of oxygen. The The blood samples from the challenged fishes were taken after every 20, 40 and 60 min. in fishes exposed to mixed solution of the pesticides. Blood samples were collected from the caudal tail vessels with 21 or 23 gauge needles and 1 or 3 cc syringes before ventilator.

Results:

The RBC count expressed in (x103/µL) was 2.61±0.06. The lowest RBC was recorded after 60 min. of exposure, ranging from 1.75-1.95 with a mean±SD of 1.85±0.02. The WBC (White Blood Corpuscles) expressed in (x103/µL) was 6.06±0.24. The WBC further showed an increase after 60 min. of exposure, ranging from 7.4-8.2 with a mean±SD of 7.8±0.98. The mean±SD value of haemoglobin (Hb) expressed in (g/dL) was 8.3±0.23. The lowest haemoglobin was recorded after 60 min. of exposure, ranging from 5.65-5.95 with a mean±SD of 5.8±0.36. The MCH (Mean Corpuscular Haemoglobin) expressed in (pg) was 31.8±0.92. The MCH further showed a decrease after 60 min. of exposure, ranging from 30.2-32.5 with a mean±SD of 31.35±4.25 pg. The MCHC (Mean Corpuscular Haemoglobin Concentration) expressed in (g/dL) was 33.2±1.37. The MCHC further showed a decrease after 60 min. of exposure, ranging from 37.12-40.2 with a mean±SD of 38.66±5.21.

The large lymphocyte expressed in (x103/µL) was 1.5±0.02. The large lymphocytes further showed an increase after 60 min. of exposure, ranging from 2.0-2.4 with a mean±SD of 2.2±0.03. The small lymphocyte expressed in (x103/µL) was 25.3±0.02. The small lymphocytes further showed an increase after 60 min. of exposure, ranging from 34.0-38.0 with a mean±SD of 36.6±0.36. The effect of 0.1 ppm "M+E" on small lymphocytes. The monocyte expressed in (x103/µL) was 1.65±0.02. The monocytes further showed an increase after 60 min. of exposure, ranging from 1.8-2.4 with a mean±SD of 2.1±0.01 x103/µL. The effect of 0.1 ppm "M+E" on monocytes of N. notopterus. The neutrophils expressed in (x103/µL) was 1.9±0.014. The neutrophils further showed an increase after 60 min. of exposure, ranging from 2.4-3.2 with a mean±SD of 2.8±0.05 x103/µL. The effect of 0.1 ppm "M+E" on neutrophils of N. notopterus (Table 1; and See table 2)

Discussion:

The observed increase in OBF and TBF during the exposure to various pesticides either solitary or in combinations had been reported earlier by **Omoregie(1995)** . The initial increases in OBF and TBF may be associated with the sudden response to shock. In addition, the behavioral response to pesticides with marked deviation in the rate of OBF and TBF from reference sample (control) imputes an adjustment in physical fitness as a result of the stress condition **(Edwards and Fusher(1991) , Leight and Van Dolah(1999))** . **Grillitsch et al. (1999)** reported that organisms exhibit behavioral responses to chemical stress both at acute and sub lethal toxicity. This elicits the potency and sensitivity of the fish N. notopterus to the test chemical. The ecological importance of this is that the damage to non-target species in the environment and such attribute of the organism could be effectively used as toxicity biosensor of chemical stress.

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During the present experiment the haematological parameters of N. notopterus were greatly disturbed on exposure to 0.1 ppm of "M+E"(Malathion and Endrin). The significant (P<0.5) Haemoglobin(g/dL) showed a decrease from 8.3±0.23 to 5.8±0.36; RBC from (x106/µL) 2.61±0.6 to 1.85±0.06; MCH from (pg)31.8±0.92 to 31.35±4.25; The other parameters like WBC from (x103/µL) 6.06±0.24 to 7.8±0.98; small lymphocyte from (x103/µL) 25.3±0.02to 36.0±0.36; nutrophils from (x103/µL) 1.9±0.014 to 2.8±0.05; monocyte from (x103/µL) 1.65±0.02 to 2.1±0.0 and eosinophils from (x103/µL) 0.5±0.20 to 1.9± 0.01 showed significant are increase from the normal values but thrombocyte are decrease. (Table no 2) The increase in WBC count can be correlated with an increase in antibody production which help in survival and recovery of the fish exposed to landane and malathion **(Joshi et al., 2002)**. The investigators potential synergistic or protective effects of common environmental pollutants on malathion toxicity, and concluded that the pesticides or more harmful, whereas the used in combinations.

Table 1: Summary of OBF and TBF values of *N. notopterus* exposed to 0.1 ppm of M+P (malathion and Endrin) pesticides.

Pesticides	Control	Exposure	Duration	
	00 min	20 min	40 min	60 min
OBF	90.5±2.5	65.2±2.6	45.3±0.9	39.0±1.5
	00 min	20 min	40 min	60 min
TBF	7.2±1.2	5.2±1.3	4.3±0.9	3.2±0.5

The fishes (n=30, take six fishes each group for treatment) were exposed to pesticides individually as well as in combinations. The values were enumerated by simple physical examination of the individual fish. The results are expressed as mean±SE of five replicas for each treatment.

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Table 2: Mean haematological parameters of *N. notopterus (Pallas)* exposed to five trial of mixture of 0.1 ppm Malathion and Endrin

Parameter	Control	20 minutes			40 minutes			60 minutes		
		Min.	Max	Mean±SE	Min.	Max	Mean±SE	Min.	Max	Mean±SE
RBC (X 10^6/µL)	2.61±0.06	2.15	2.25	2.2±0.02^{ab}	1.7	2.1	1.9±0.01^{ab}	1.75	1.95	1.85±0.02^{b}
WBC (X 10^3/µL)	6.06±0.24	5.3	5.5	5.4±0.65^{a}	6.8	7.6	7.2±1.2^{b}	7.4	8.2	7.8±0.98^{b}
Hemoglobin (g/dL)	8.3±0.23	7.0	8.0	7.5±0.56^{b}	6.8	7.6	7.2±0.08^{a}	5.65	5.95	5.8±0.36^{a}
MCH (pg)	31.8±0.92	32.98	35.2	34.09±3.21^{ab}	37.33	38.45	37.89±9.25^{b}	30.2	32.5	31.35±4.25^{ab}
MCHC (g/dL)	33.2±1.37	36.5	38.5	37.5±5.21^{a}	41.12	43.58	42.35±6.52^{ab}	37.12	40.2	38.66±5.21^{ab}
Large lymphocytes (X 10^3/µL)	1.5±0.020	1.12	1.28	1.2±0.05^{a}	1.8	2.0	1.9±0.35^{b}	2.0	2.4	2.2±0.03^{b}
Small lymphocytes (X 10^3/µL)	25.3±0.02	21.0	23.0	22±0.35^{a}	28.0	32.0	30±2.6^{ab}	34.0	38.0	36±0.36^{ab}
Monocytes (X 10^3/µL)	1.65±0.02	1.55	1.63	1.59±0.08^{b}	1.85	1.95	1.9±0.04^{a}	1.8	2.4	2.1±0.01^{b}
Neutrophils (X 10^3/µL)	1.9±0.014	1.58	1.82	1.7±0.05^{a}	2.21	2.39	2.3±0.02^{ab}	2.4	3.2	2.8±0.05^{ab}
Eosinophils (X 10^3/µL)	0.5±0.020	0.48	0.72	0.6±0.01^{b}	0.7	0.9	0.8±0.01^{a}	0.8	1.0	0.9±0.01^{b}

Note: Values are mean±SD of five replications (d.f. 5, 30). Means in the same row having different superscripts are significantly different ($P < 0.05$) and values in the same row with same superscript are not significantly different ($P > 0.05$). * The values of the MCH and MCHC are calculated by the formulae, corresponding to the appropriate values of RBC, WBC, Hb .

Conclusions:

The present investigation revealed a marked reduction in the opercular beat frequency (90.5 to 39.0) and tail beat frequency (7.2 to 3.2) in *N. Notopterus* exposed to malathion and parathion at the end of 60 min. exposure time. The results on the haematological aspect of the experiment (5 replicas) revealed that significant ($P < 0.05$) increase in WBC (6.06 to 7.8), and decrease in Hb, RBC, MCH, MCHC and other non-specific defence cells.

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सृष्टि में जन्म लेने वाले सभी प्राणियों को अपनी इच्छानुसार जीवन जीने का अधिकार प्राकृतिक रूप से प्राप्त है। मनुष्य एक विवेकशील प्राणी है, इसलिये वह कानून एवं नैतिकता की परिधि में रहकर जीवन व्यतीत कर सकता है। यह स्थिति महिला–पुरुष दोनों के लिये एक सी है। प्रकृति ने जब अधिकारों के उपभोग में महिला–पुरुष के मध्य अंतर नहीं किया है तो यह अंतर मानव निर्मित समाज के द्वारा क्यों किया गया यह एक विचारणीय प्रश्न है ?

आज देश की आधी आबादी अपने अधिकारों के लिये संघर्षरत है, ऐसे में समाज व देश का सर्वांगीण विकास कैसे सम्भव होगा ? यह सच है कि आज परिदृश्य बदल रहा है, मीडिया, मानवाधिकार संगठन, कानूनी व्यवस्थाएं सभी महिलाओं के विकास,सम्मान एवं संरक्षण में अपनी सशक्त भूमिका निभा रहे हैं। आवश्यकता इस बात की है कि महिलाएं स्वयं भी आगे आयें और इसकी शुरूआत परिवार से हो तो महिलाओं की स्थिति मजबूत होने से न केवल परिवार और समाज बल्कि देश भी उन्नति के सर्वोच्च शिखर पर पहुँचेगा और वह उक्ति चरितार्थ होगी – 'यत्र नार्यस्तु पूज्यते, रमन्ते तत्र देवता'।

भूमिका

भारतीय संस्कृति में नारी को एक महान शक्ति के रूप में आदर सम्मान दिया जाता रहा है। वैदिक काल में नारी सामाजिक, धार्मिक एवं आध्यात्मिक क्षेत्रों में पुरुष की सहभागीनी थी। उसे जीवन व समाज के प्रत्येक क्षेत्र में गौरव व सम्मान प्राप्त था। मध्यकाल में भारतवर्ष में मुगल साम्राज्य के विस्तार के साथ–साथ नारी की स्थिति में गिरावट आती गयी। बहुत से विचारकों एवं समाज सुधारकों जैसे राजाराममोहन राय, दयानन्द सरस्वती, विवेकानन्द, महात्मा गांधी इत्यादि ने भारतीय नारी की दशा को समझते हुये नारी शिक्षा व अन्य सुधारों को प्रचारित करने व लागू करवाने का महान कार्य किया। कालान्तर में ब्रिटिश शासन काल में लंबे संघर्ष व असंख्य बलिदानों द्वारा स्वतन्त्रता प्राप्त करने के पश्चात् आज़ाद भारत के संविधान में भारतीय नारी को अनेक अधिकार प्रदान किये गये। स्वतन्त्र भारत में निरन्तर महिलाओं ने राजनीतिक सामाजिक क्षेत्रों में एवं शिक्षा तथा रोजगार के क्षेत्रों में सफलता अर्जित की और नये कीर्तिमान भी स्थापित किये।

स्त्री और पुरुष सार रूप में रेखांकित करें तो दोनों समाज की प्रमुख इकाई होते हैं, जिनके सहयोग और सामंजस्य से समाज उत्तरोत्तर प्रगति करता है। 'यदि हम मानव सभ्यता के विकास पर नजर डालें तो स्त्रियों को ऋग्वैदिक समाज में जो सम्मानजनक स्थिति प्राप्त थी वह सभ्यता के उत्तरोत्तर विकास के साथ हाशिये पर जाती रही। स्त्री सम्मान एवं प्रतिष्ठा का पतन उत्तरवैदिक काल से ही आरम्भ हो गया था और इस क्रम में निरन्तर वृद्धि हुयी है, वह भी काफी आक्रामक और विकृत रूप में।'[1]

यद्यपि यह भी सच है कि सभ्यता व तकनीक के विकास के साथ स्त्रियों ने विशेषकर अपनी मेहनत से समाज के सभी क्षेत्रों में अपना एक मुकाम हासिल किया हैं और किन्हीं क्षेत्रों में तो पुरुषों को भी पीछे छोड़ दिया है। आज शिक्षा का, विज्ञान का, खेल का, राजनीति का, फिल्म का, समाज सेवा या कुल मिलाकर ऐसा कोई क्षेत्र नहीं है जहाँ हम प्रतिष्ठा प्राप्त स्त्रियों की उपस्थिति नहीं दर्ज करा सके।

लेकिन इस पूरे परिदृश्य में जो बात कहीं न कहीं स्त्री मन को तथा समाज के बारे में गहराई से सोचने वाले व्यक्ति के मन को, व्यथित करती है वह है समाज की उसके प्रति संकुचित एवं विकृत सोच।

महिलाओं की शोचनीय स्थिति व उसके कारण

'अपने गौरवशाली इतिहास और अनेकों कानूनी अधिकारों के बावजूद भी आज भारतवर्ष में महिलाओं की स्थिति संतोषजनक नहीं है। अनेकों शीर्ष पदों पर महिलाओं के आसीन होने के बाद भी आज आम महिला को उसका अधिकार व सम्मान प्राप्त नहीं है। अशिक्षित महिलाओं का अपने अधिकारों को न जानना व उनके लिये जागरूकता की कमी महिलाओं की शोचनीय स्थिति का एक प्रमुख कारण है।'[2] यह दुर्भाग्यपूर्ण किन्तु अप्रिय सत्य है कि 'यत्र नार्यस्तु पूज्यते, रमन्ते तत्र देवता' की

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अवधारणा वाले भारत देश में सामाजिक, राजनीतिक, शैक्षणिक, पारिवारिक सभी स्तरों पर स्त्री की दशा शोचनीय है।

महिला के विरूद्ध अपराध के विविध रूप

स्त्रियों पर होने वाले अपराध (भ्रूण हत्या, दुराचार, दहेज, यौन उत्पीड़न, असमान व्यवहार) इस विकसित समाज के माथे पर लगा हुआ एक ऐसा कलंक है जो तमाम प्रयासों के बावजूद साफ नहीं हो रहा है बल्कि उसका स्वरूप और अधिक विकृत होता जा रहा है।

महिलाओं के विरूद्ध होने वाले अपराधों के आंकड़ों में प्रतिवर्ष वृद्धि हो रही है। इनमें महानगरों विशेषकर दिल्ली में होने वाले अपराध तो राष्ट्रीय औसत की तुलना में कहीं अधिक संख्या में बढ़ रहे हैं। किन्तु ये वे अपराध हैं जो दर्ज किये जाते हैं। बहुत से ऐसे अपराध हैं, जिनकी रिपोर्ट भी दर्ज नहीं करायी जाती है। इनमें कन्या भ्रूण हत्या का अपराध सर्वाधिक चौकाने वाला है। इसके आंकड़े से ज्यादा महत्वपूर्ण तथ्य यह है कि हरियाणा, गुजरात, चंडीगढ़, पंजाब जैसे कई राज्यों में पुरुषों की तुलना में स्त्रियों का अनुपात कम हो गया है।

महिलाओं के संरक्षण के कानूनी उपाय व उनका व्यवहारिक स्वरूप

'आज देश में महिलाओं के हक में अनेक कानूनों के होते हुये भी यदि महिलाओं को न्याय नहीं मिल पाता है तो उसके कारण कहीं न कहीं कानून की संरचना एवं न्यायिक प्रक्रिया में भी है। उदाहरण स्वरूप – कानूनन लड़कियों को पिता की सम्पत्ति में बराबर का अधिकार दिया गया है किन्तु वही अधिकार कृषि भूमि के विषय में पूर्णतया समान नहीं है। भूमि कानून की अपनी संरचना है और उसमें पुत्री का अधिकार पट्टीदारी के हिसाब से काफी बाद में बनता है।'[3] दूसरी बात पिता की शेष सम्पत्ति में भले ही बेटी को समान अधिकार दिया गया हो किन्तु वह तभी मिल पाता है, जब वह पुत्र को वसीयत किये बिना अपनी सम्पत्ति छोड़ कर जाये और यदि पिता ने पुत्र को वसीयत लिख दी है तो पुत्री हक पाने से वंचित रह जाती है। इसी प्रकार कई अन्य विषयों में भी कानूनी जटिलताएं हैं जो स्त्रियों के अधिकारों में मुश्किल पैदा करती हैं।

अब हमें इस विषय पर गहराई से सोचना होगा कि इस स्थिति से निपटने के लिये हमें इसके मूल (जड़) तक पहुँचना कैसे सम्भव होगा ? जब तक हम किसी बीमारी का उपचार बिना उसके मूल तक पहुँचे ऊपरी तौर पर करना चाहते हैं तो हमें क्षणिक तौर पर तो लाभ दिखायी देता है किन्तु वह मर्ज पूर्णरूपेण खत्म नहीं हो पाता। समाज में स्त्री के प्रति बनी हुई कलुषित सोच और उसी सोच के परिणामस्वरूप होने वाले अपराधों को रोकने के लिये ऊपरी तौर पर प्रयास करने के बजाय उसके मूल तक पहुँचना ही होगा।

जहाँ तक मेरी अपनी व्यक्तिगत राय है कि इसकी शुरूआत परिवार से करनी चाहिये। परिवार में भी सबसे बड़ी भूमिका माँ को निभानी पड़ेगी। यदि हम स्त्री के प्रति होने वाले पहले अपराध कन्या भ्रूण हत्या को लें तो कहीं न कहीं इसके लिये पुरुष के साथ–साथ स्त्री स्वयं भी उत्तरदायी है। कितने भी ऊँचे पदों पर पहुँचने तथा उच्च शिक्षित होने के बाद भी पुत्र की चाह स्त्री के मन में पुरुष से कम नहीं होती है। आँकड़े भी यही दर्शाते हैं कि कन्या भ्रूण हत्या का अनुपात शिक्षित महिलाओं में अशिक्षित महिलाओं से ज्यादा है। स्वयं स्त्रियाँ ही स्त्रियों के प्रति होने वाले इस पहले दृष्टिकोण में परिवर्तन ला सकती हैं। यह सच है कि कहीं–कहीं वे चाह कर भी इससे बच नहीं पातीं हैं और उन्हें परिवार के दबाव के आगे झुकना पड़ता है किन्तु नारी यदि निश्चय कर ले तो वह काली और दुर्गा का अवतार मानी जाती है। लेकिन कोई भी मंजिल तभी मिल सकती है जब उसकी शुरूआत खुद से हो। यदि हम अपने को बचाते हुये पुरुष वर्ग और समाज पर दोषारोपण करते रहेंगे तो यह कभी सम्भव नहीं हो पायेगा।

सुझाव

'स्त्रियों के प्रति होने वाले अपराध (यौन उत्पीड़न, दहेज हत्या, असमान व्यवहार, बलात्कार) की यदि हम चर्चा करें तो इसके लिये भी पहल परिवार से ही करनी होगी। आज के मशीनी व उपभोक्तावादी युग में पैसा ही सबसे बड़ा सच है, पैसा ही सबसे बड़ा मित्र है, पैसा ही समाज में सम्मान एवं प्रतिष्ठा का द्योतक है, जिसके आगे योग्यता, समझदारी, मानवीय गुण कोई मायने नहीं रख रहे हैं। यह बात आज के युवा मन में गहरे पैठ गयी है।'[4] जब हम अपने बच्चों के सामने वही आदर्श रख रहे हैं तो उनसे बेहतर की उम्मीद कैसे सम्भव है। संयुक्त परिवारों का टूटना, माता–पिता का अपने बच्चों को उपयोगी समय न दे पाना, बच्चों के मन में अकेलापन पनपना, बच्चों को समय की कमी के कारण व संयुक्त परिवारों के टूटने के कारण संस्कारों को न दे पाना, जो पहले स्वतः परिवार में रहन–सहन या बड़ों के सम्मान से आते थे, उनका समाप्त होना इस समस्या का सबसे बड़ा कारण है। इसलिये इस दृष्टिकोण को समझना होगा कि सबसे पहले परिवार तथा विद्यालयों को इस जिम्मेदारी को उठाने की शुरूआत करनी होगी।

महिलाओं की स्वयं की भूमिका

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इसके साथ ही साथ जो दूसरा पहलू है उसे भी नजरअंदाज नहीं किया जा सकता कि स्वयं कहीं न कहीं महिलाओं खासकर युवा लड़कियों का व्यवहार भी अपराध का कारण बनता है। हाँ, यह बात हर स्थिति में सच नहीं होती है ऐसा अवश्य माना जा सकता है। कम उम्र की कन्याओं या बुजुर्ग महिलाओं के साथ होने वाले दुराचार इसके उदाहरण हैं। लेकिन 'आज के परिवेश में जब हम कन्याओं को बालकों की भाँति सब सुख सुविधाएँ बिना किसी रोक टोक के देने की वकालत करते हैं तो इस बात की भी वकालत होनी चाहिये कि संस्कार व सीमाएं भी दोनों के लिये उतनी ही जरूरी हैं। इसको लिंग भेद के आधार पर निर्धारित नहीं किया जा सकता। उच्छृंखल व्यवहार किसी का भी समाज में मान्य नहीं हो सकता है।'[5] यदि प्रतिष्ठा, इज्जत व सम्मान बराबर से मिलता है तो मर्यादा की सीमा भी दोनों के लिये समान होनी चाहिये। स्त्रियोचित करूणा, दया, त्याग को महिला की कमजोरी नहीं उसकी ताकत बननी चाहिये।

निष्कर्ष

नारी सम्मान और स्थिति को यदि उन्हीं ऊँचाइयों पर ले जाना है – 'यत्र नार्यस्तु पूज्यते, रमन्ते तत्र देवता' तो सर्वाधिक बल नारी शिक्षा पर दिया जाना चाहिये। नारी शिक्षा सशक्तिकरण का एकमात्र माध्यम तो नहीं है किन्तु एक सशक्त माध्यम अवश्य है। नारी जब तक आत्मनिर्भर नहीं होगी, जो कि बिना शिक्षा के संभव नहीं है, उसकी दोयम दर्जे की स्थिति समाप्त नहीं हो सकती है। सिर्फ सम्मेलनों, भाषणों एवं सेमिनारों संगोष्ठियों में बैठकर चर्चा करने से यह स्थिति समाप्त नहीं हो सकती। बंद कमरों में होने वाली बहसों की गूँज इन दीवारों में ही दम तोड़ देती है। किताबों और कहानियों में तो हमने नारी को नायिका बना दिया है किन्तु यर्थाथ के धरातल पर इसे साकार करने की आवश्यकता सर्वाधिक है। महिला सशक्त तभी होगी जब वह साक्षर, स्वावलंबी एवं आत्मनिर्भर बनेगी।

स्त्री–पुरुष समानता को कानून के साथ ही साथ समाज का भी साथ चाहिये। कानून व दण्ड समाज में व्यवस्था बनाते हैं, अपराधों के प्रति भय का सृजन करते हैं। न्यायिक प्रक्रिया की तीव्रता व निर्णयों पर कठोरता से अमल स्त्रियों के प्रति अपराध में कमी जरूर लायेंगे लेकिन इस बात को ध्यान में रखना चाहिये कि इसे सम्पूर्ण पुरुष समाज को अपराधी मान कर प्रयोग में नहीं लाना चाहिये। शोषण एवं अपराध, समाज के किसी भी वर्ग (स्त्री या पुरुष) के लिये क्षम्य नहीं होना चाहिये और इसे वर्ग से तटस्थ रखकर देखा जाना चाहिये तभी एक समतामूलक, सम्मानजनक समाज और राष्ट्र की स्थापना व प्रगति सम्भव है।

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