SCREENING OF SOME INDIGENOUS MEDICINAL PLANTS FOR ANTI-IMPLANTATION / ANTI-FERTILITY ACTIVITY IN FEMALE ALBINO RATS

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ABSTRACT – Alcoholic extracts of Abrus precatorius (T1) Linn. (dried seeds and inflorescence), Moringa oleifera (T7) Lam. (dried bark), Peganum harmala (T8) Linn. (dried seeds) and Momordica tuberose (T9) (Roxb.) Cogn. (dried roots), petroleum ether extracts of Cedrus deodara (T2) (Roxb). Loud. (dried stem bark), Artabotrys hexapetalus (T3) (Linn. F. Bhandri.) (fresh leaves), Ocimum tenuiflorum (T5) (Linn.) (dried seeds) and Jasminum arborescens (T6) (Roxb.) (fresh flower buds) and extract of Mallotus philippensis (T4) (Muell. Arg.) (dried bark) prepared from edible mustard oil through oil emulsion process (Ayurvedic Tel pak vidhi), were screened for anti-implantation / anti-fertility activity at a dose of 250 mg/kg, body weight on the test animals. The treatment was continued up to 7th day of post-mating period. The remarkable high anti-implantation / anti-fertility activity was exhibited in plant extracts of C. deodara (T2), P. harmala (T8), O. tenuiflorum (T5), A. hexapetalus (T3), A. precatorius (T1) and M. philippensis (T4) at 100, 100, 95, 72, 63 and 47 per cent, respectively. Low anti-implantation / anti-fertility activity i.e., in between 19% to 38% was found in the treatments of M. oleifera (T7), M. tuberose (T9) and J. arborescens (T6), respectively. 100% anti-implantation / anti-fertility activity was seen only in two extracts i.e., C. deodara (T2) and P. harmala (T8). The other seven extracts were also mentioned in Ayurvedic literature as an anti-fertility agents and their reference is also mentioned in the ethnomedicines as well as in folk remedies, unknowingly the fate of fetus and neonates in such failure case of anti-fertility. Findings indicate that the petroleum ether extracts of C. deodara, O. tenuiflorum and A. hexapetalus, alcoholic extracts of P. harmala and A. precatorius and emulsion oil extract of M. philippensis can affect the estrous cycle by blocking the biogenesis of ovarian steroids in high percentage at any intermediary stage along with the remarkable imbalance of ascorbic acid and cholesterol contents in ovary and exhibited them as significant contraceptive, antiestrogenic and antiprogestational activities. Conclusively, C. deodara and P. harmala would be worthwhile in serving as a tool in an absolute potential for birth control.

Key words : Anti-implantation, anti-fertility, ethnomedicines, antiestrogenic, antiprogestational, birth control.