



## Analysis on Homoeopathic Preparation of *Asterias Rubens* for Evaluating Anti Breast Cancer Cell Line using Similia Principle

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### ABSTRACT

Breast cancer is the subsequent foremost reason of cancer death in a woman and ranks as the primary foremost reason of death in India. In its conduct, several measures and recommendation are considered. Homoeopathic medicines are one of the part of a corresponding, and another medicine is utilized for the treatment of cancer. The main purpose of the investigation is to evaluate the anticancer action of homoeopathic arrangements of *Asterias rubens* on the basis of the similia principle. We directed an *in vitro* study using MTT assay to control the result of ultra diluted homoeopathic preparation in contradiction of two human breast glandular cancer cell lines (MCF-7 and MDA-MD-231), frequently used for the breast cancer treatment, by testing the feasibility of breast cancer (MCF-7 and MDA-MD-231) cell line, with various attenuations of *Asterias rubens* at 24 hrs. Multiple comparisons between tested reagents at different concentrations confirmed the significance of the said results. At a dilution of 1:25 6CH and 30CH potency shown superior activity on MCF-7 and no such significant changes on MDA-MD-231 at any dilutions As it fails to offer estrogen receptor (ER) Also progesterone receptor (PR) expression, and also HER2 (human epidermal development variable receptor 2) so continuously a triple-negative breast cancer it will be a hostility manifestation for breast cancer with restricted medicine choices. However, further potency needs to be tested. These preliminary significant results warrant further *in vitro* and *in vivo* studies to estimate the possible of *Asterias rubens* a medicine to treat breast cancer.



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### INTRODUCTION

Breast Cancer is a hateful propagation of epithelial cells coating the channels or lobules of the breast (Helen *et al.*, 2017). The second leading reason of cancer death in a woman is Breast Cancer and positions as the primary important reason for death in India (Kasper *et al.*, 2016). In the year 2018, about 2.09 million belongings of breast cancer and 627000 demises happened Worldwide from the disease, many because of late diagnosis and lack of access to affordable treatment (Helen

*et al.*, 2017; Kasper *et al.*, 2016). Breast cancer is hormone- reliant on. Women by late menar- che, early menopause, and first full-term pregnancy by age 18 take a suggestively condensed danger. Women who established therapeutic radioactivity earlier age 30 are at amplified risk. Breast cancer risk is augmented by sister and mother also has the disease (*Indian against cancer*, 2012).

The treatment usually includes chemotherapy, radiotherapy, and hormone therapy. These cus- tomary modes of medicines would be frequently frightful. What's more, are connected with sig- nificant side impacts. Further, people regularly search for other modes of medication that generally need fewer alternately no side impacts. What's more, cam wood makes supplement the customary medication.

Homeopathy offers particular case such arm from claiming integral What's a more elective treatment that makes those tolerant no ache Also need no or unimportant side impacts and need been used to treat Different infection states including cancer (*Malvia et al.*, 2017; *Samadder et al.*, 2013). Homeopathy will be an arrangement for pharma- ceutical formed in the late eighteenth century by Samuel Hahnemann. In view of the principle, "like cures like" Furthermore often utilization greatly sec- ondary dilutions from claiming remedies. Most, yet all the not all, basic reviews of clinical expos- itive expression in homeopathy show noteworthy impacts Past placebo, and Anyhow there is an insuf- flate examination base over At whatever person con- dition should show particular viability alternately on get it instruments.

Homeopathy is an elective medicinal frame- work polished On the whole parts of the uni- verse (*Thangapazham et al.*, 2006) as stated by those homeopathic framework for medicine; reme- dies clinched alongside secondary serial dilutions hold their living activity, have decreased toxicity, Furthermore conjure recuperating techniques.

*Asterias rubens* has Sycotic diathesis; It has been used for cancer of the breast and has an unques- tioned influence over cancer disease. Those as a relatable point starfish alternately regular ocean star (*Asterias rubens*) is the most regular and acquainted starfish in the north-east Atlantic. *Aste- rias rubens* may be successful for breast cancer Indeed going by ulcerative phase.

In this study, we were investigated those impact from claiming homeopathic preparation for *Asterias rubens in vitro* looking into growth borealis accor- dance regularly utilized to treat breast cancer.

## MATERIALS AND METHODS

### Homoeopathic Samples

Homoeopathic Preparations of *Asterias rubrens* (6C, 30C) was procured from GMP Certified Homoeopa- thy pharmacy Schwbe India. Batch number log was 0255232 and 0269385 respectively.

### Cell culture

The human breast cancer cell lines, MCF-7(ER +/PR+/HER2-) and MDA MB-231(ER-/PR-/HER2- ), were obtained from ATCC, USA. MCF-7 cells were grown in EMEM Supplemented for 0. 01 mg/ml human recombinant insulin, fetal cow-like serum (FBS) on An last fixation of 10% and 100 U/ml for penicillin-streptomycin. MDA- MB-231 phones were developed On DMEM supplemented for 10% FBS Also 100 U/ml from claiming penicillin- streptomycin. Those units were incubated in a humidified 5% co2 hatchery toward 37°C.

### Cell Viability Test

An untreated gathering might have been kept as An negative control. Those 6C and 30C potencies about *Asterias rubens* were included In taking after dilu- tions: 0, 1:25, 1:50, 1:100, 1:200 in wells for tripli- cates. The MTT result (5 mg/ml) might have been included to each well, and the phones were cos- mopolitan for an alternate 4 h during 37°C to 5% co2 hatchery. The formazan crystals framed were bro- ken down Eventually Tom's perusing expansion 100  $\mu$ l of DMSO. The measure of hued formazan subor- dinate might have been dictated; eventually, Tom's perusing measuring optical thickness (OD) utiliz- ing the Elisa microplate spectator (Biorad, Hercules, CA) during 570 nm (OD570-630 nm).

The rate viability might have been ascertained Like- wise,

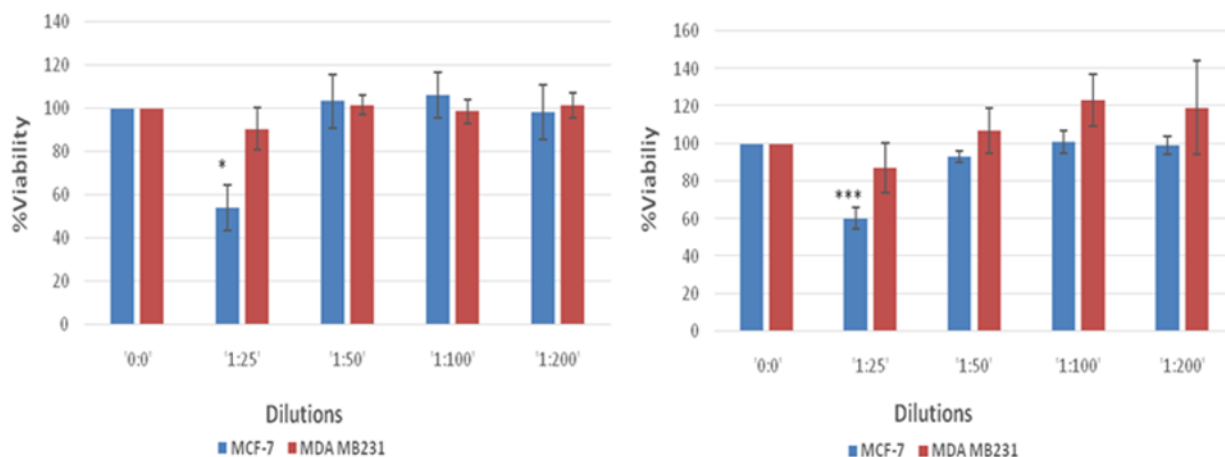
$$\% \text{ Viability} = \left[ \frac{\text{OD of treated cells}}{\text{OD of control cells}} \right] \times 100$$

### Numerical examination

The analyses is approved out by means of Graph- pad prism 5 software (San Diego, CA, USA). The Values with \*p < 0.05; \*\*p <0.01; \*\*\*p < 0.001 is measured to be statistically important. The exper- iment was performed in triplicates, and the values is obtainable as mean  $\pm$  SD. Alterations between resources are verified for numerical consequence by means of one-way analysis of variance (ANOVA).

## RESULTS

In MCF-7 cells, at 1:25 dilution of 6C and 30C poten- cies of *Asterias rubens*,  $54.03 \pm 0.08$  % (p  $\leq$  0.05)



**Figure 1: Effect of 6C (a) and 30C b) potencies of *Asterias rubens* on the feasibility of MCF-7 and MDA MB231 cells**

**Table 1: Percent viability of MCF-7 and MDA MB231 cells subsequently behavior with 6C and 30C potencies of *Asterias rubens***

6CH (Dilutions)	% Viability with SD	
	MCF-7	MDA MB231
1:25	54.03±0.08	90.7±0.1
1:50	103.5±0.07	101.6±0.04
1:100	106.4±0.03	98.7±0.06
1:200	98.4±0.08	101.5±0.01
30CH (Dilutions)	% Viability with SD	
	MCF-7	MDA MB231
1:25	60.37±0.07	87.13±0.12
1:50	93.35±0.002	107.1±0.03
1:100	101.26±0.008	123.2±0.02
1:200	99.06±0.05	119.2±0.002

and  $60.37 \pm 0.07 \%$  ( $p \leq 0.001$ ) viability, correspondingly, was observed associated to the unprocessed controller Cells (Figure 1a). On the added hand, in MDA-MB-231 cells, at 1:25 dilution of 6C and 30C,  $90.77 \pm 0.1\%$  ( $p > 0.05$ , statistically non-significant) and  $87.13 \pm 0.12\%$  ( $p > 0.05$ , statistically non-significant) viability, respectively, was observed (Figure 1b).

Table 1, those cell viability might have been decided Eventually Tom's perusing MTT color. Those breast tumor cell lines, MCF-7 and MDA MB-231 phones were seeded In a thickness about  $1. \times 10^5$  cells/ml thickness clinched alongside 96-well plates.

**DISCUSSION**

Homeopathy controls moment amounts about substances that process indications of disease over An

sound persnickety The point when administered clinched alongside substantial doses. However, there would be a couple of investigations accessible looking at those instruments from claiming homeopathy utilizing traditional exploratory strategies. 10. In the introduced study, we analyzed the impact of *Asterias rubens* during the cell division level utilizing breast tumor units. Our findings suggest that ultra-high diluted homeopathic remedy prescribed for breast cancer exert preferential anti-cancer effects in contradiction of the human breast carcinoma cell line MCF-7.

The homeopathic potencies of *Asterias rubens* (6c, 30c), Were tried to their viability against breast tumor phones. For trying those impact for *Asterias rubens* potencies (6c, 30c) around Mobile viability, every potency might have been weakened in Mobile society medium (1:25, 1:50, 1:100, 1:200).

Despite. Dilutions (in DMEM), those potencies 6c, 30c were fundamentally compelling against breast tumor phones during 1:25 weakening with respect to MCF-7 and no critical impact with respect to MDA-MD231.

However, higher potencies from claiming *Asterias rubens* require will a chance to be assessed to affirming these outcomes with respect to MDA-MD231. Thus, whatever impact of the potencies might have been watched on the breast tumor phones might have been purely because of those dynamic guideline available Previously, them. The higher dilutions (1:50-1:200) of potencies On DMEM, didn't show calculable anticancer impact since these were straightforward dilutions in society medium, Also not potentised, coming about under passing of the animated guideline. And receptor-positive MCF-7 cell line has shown the effect rather than receptor-negative MDA-MD231 cell line signifies the effect of homoeopathic medicine *Asterias rubens* over the cell receptors.

As the *Asterias rubens* is the leading remedy for breast cancer treatment in homoeopathy confirms the similia principle by showing its effect on the cell line. As stated by that homeopathic framework about medicine, remedies done high serial dilutions hold their living activity, bring decreased toxicity, What's more conjure recuperating forms. Homeopathy controls moment amounts for substances that transform indications of ailment to An solid representative when administered for vast doses.

## CONCLUSIONS

6C Also 30C potencies for *Asterias rubens* show preferential anti-cancer action against ER/PR/Her2 receptor sure breast tumor cells, MCF-7. On the great holders kept all 6C What's more 30C potencies for *Asterias rubens* didn't show anti-cancer action against ER/PR/Her2 receptor-negative breast cells, MDA-MB-231 as it fails to offer estrogen receptor(ER) Furthermore progesterone receptor (PR) expression, and in addition HER2 (human epidermal Growth figure receptor2) thus being An triple-negative breast tumor it will be a hostility manifestation for breast tumor for constrained medication choices. However, higher potencies from claiming *Asterias rubens* have will make assessed to affirming bring about shortages with respect to MDA-MD 231.

These preliminary effects recommended that homoeopathic potencies about *Asterias rubens* holds possibility as anticancer action Might a chance to be further investigated against breast tumor *in vivo*.

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## Conflict of Interest

The authors declare that they have no conflict of interest for this study.

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