Introduction

Historically HPV (Chart 1) is known as the cause of common and anogenital warts (Palefsky, [9]) and it is an important fact that 60% of all types of HPV cause warts which are the benign neoplasms. Cancer transformation in HPV infection is mainly due to three major viral oncoproteins (E5, E6, and E7) which cause alteration of cell cycle regulation and telomere maintenance and block tumor suppressor pathways and apoptosis. HPV shows specific tropism toward the epithelial basal layer, containing adult epithelial stem cells and HPV binding receptors integrin α6. The E6/E7 oncoproteins control cytokine expression which alter cell proliferation and interferon expression. Expression of HPV viral proteins and viral integration promotes chromosomal anomalies and cellular immortalization (Pullos, et al. [10]). There are more than 200 different HPV types which have been identified and classified into 5 genera, α, β, γ, μ, and ν. Cell mediated immunity generally terminates non-oncogenic HPV infection within 2 years.

In most of the cases, HPV can cause common warts, filiform and flat warts. Important cutaneous types are HPV 1, 2, 3, 4, 27, and 57. Some peculiarities are that common cancer causing HPV 16, 18 have been isolated in warts (Giannaki, et al. [4]) and cutaneous wart producing strains have also been isolated from anogenital warts (Palefsky, [9]).

Mainly three types of warts are encountered in dermatology practice – common warts, plantar warts and genital/anal warts. They may be soft, hard, rough, smooth, scaly, flat etc. which are mainly determined by the type of the virus and the location. They are also more common at the sites of trauma. Occupation also play an important factor; thus warts are more common in abattoir workers, butchers, engineering fitters. Poor nutrition, stressful life, inadequate rest, close living conditions predisposes skin wart formation. A detailed description of various types of warts is given by Sterling, et al. [12]. In short common warts are popular or nodular lesions on the skin surface which are firm in consistency and with rough keratosis. Flat warts are minimally raised, usually 2-4 mm size with sparse scaling. There are also intermediate warts which are characterized by both common and flat warts. Planter warts are usually popular with keratotic surface and thickened margin. When planter warts are fused to form large masses, they are known as mosaic warts. There are also anogenital warts, oral warts, myrmecia (burrowing warts). Some warty conditions like epidermodysplasia verruciformis, bowenoid papulosis, focal epithelial hyperplasia, epithelioma cuniculatum and verrucous carcinoma which often mimic warts also ano-genital warts, oral warts, myrmecia (burrowing warts).
conventional treatment of warts according to the sites is also
given by Sterling, et al. [12].

The fundamental principle of homeopathic treatment was
laid down by Christian Fredrick Samuel Hahnemann in 1796
described in Organon of Medicine. Accordingly warts belong
to sycosis miasm. In homeopathy selection of medicine depends
on specific symptoms of an individual patient. However, in
warts there are only a few symptoms or no symptom at all. Thus
homeopathic treatment in warts is basically oriented according
to their locations and morphological characteristics other than few
individual characters. Thus the medicines selected in this study
were based on this notion as well as on personal experience of the
Author as a physician. One important point is that homeopathic
medicines are used usually in ultradiluted form and in most cases
it is more than 10-12 dilution. Thus with this diluted form there
is no side effects as found in conventional medicine.

**Thuja occidentalis** Linn is commonly known as American
arbor vitae belong to the family Cupressaceae. It is an evergreen
tree up to 20 m tall with rugged conical crown of Branches. The
leaves or dried twig tips contain camphor like essential oil called
oil of thuja or white cedar leaf oil which is easily soluble in alcohol
and mainly contains poisonous d-thujone, volatile oil, sugar,
gelatinous matter, wax, resin and thuujin (Hansel, et al. [7]). A
wash of the plant is used as a remedy of wart. Active ingredients
of the plant can increase IL1, IL6 and TNF (Bodinet, et al. [3]).
Thuja causes increased activities of CD4 T lymphocytes (Gohla,
et al. [6]). There are also some previous reports indicating that
Thuja can eradicate papillomatous lesions (Gimeno, [5]).

**Solanum dulcamara** L., commonly known as bitter sweet,
dogwood or climbing nightshade is one of the about 1,500 species
of the genus Solanum (Weese and Bohs, [16]). The alkaloids are
similar to diosgenin (Mathe, et al. [8]). They usually contain
salosidine, soladulcidine, tomatidenol, calystegines glycosides
(polyhydroxy nortropane alkaloids, with bicyclic nortropane ring
structure, Asano, et al. [2]) with the neutral saponins. Natrum mur
is chemically sodium chloride but the medicine is prepared by a
special process so that it can give its specific bioactive property.

**Results**

In 88% cases remission started within 1 month and complete
remission was seen by 3 months. Delayed response was seen in
12 cases and the remaining 12 cases discontinued treatment. Few
typical cases with different types of warts have been shown
in serial photographs from beginning of treatment to complete
recovery (Figure 1-7). The control group remission occurred from
6 months to 2 years time. Mean, standard deviation and standard
error of Mean of quick recovery cases (Mean 49.63 days, SD 17.79,
SEM 1.34, N=176), delayed recovery cases (Mean 161.25 days, SD
23.61, SEM 7.12, N=12) and control cases ( Mean 404.10 days, SD
6 months, SEM 1.34, N=10) were calculated (Figure 8). Statistical
analysis was done with GraphPad software. The two –tailed P
value of differences between duration of remission in between
quick recovery cases (N=176) and control cases (N=10) was
less than 0.0001 (t value was 27.80). Similarly the two-tailed P value of differences between duration of remission in between delayed recovery cases (N=12) and control cases (N=10) was also less than 0.0001 (t value was 5.24). By conventional criteria, both the differences are considered to be extremely statistically significant.
Healing Of Skin Warts with Ultradiluted Homeopathic Medicines- A Study in 200 Cases

Discussion

HPVs mainly infect keratinocytes of the skin of humans and other vertebrate species (Vinzon, et al. [15]); however, Human Papillomavirus (HPV) only infects human beings (Palefsky, [9]). Chemicals preset in *Thuja occidentalis* L., *Solanum dulcamara* L, and natrum mur are modified in relation to their biological actions during preparation of the medicine so that they act in a different way to achieve the results, however, still we do not know the exact mechanism of action of these medicines. Some changes in molecular pathways and receptors are documented during treatment with homeopathic medicines; however, detailed mechanism is not delineated.

Acknowledgement

I hereby acknowledge The President, Ramakrishna Mission for giving me permission to publish this paper. I also thank all doctors and paramedical staff of our Medical Unit for helpful suggestions.

References