HUMAN PAPILLOMA VIRUS (HPV) CAUSING SKIN TAGS
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INTRODUCTION: Skin tags are common in half of the population, it is an acquired benign pedunculated growth usually in neck, arm pits, upper eye lids in children, groin folds, under the breast, buttocks, and the unusual sites like penis, scrotum and opening of the prepuce tip. Some persons have more than 100 skin tags in middle aged and obese persons. The skin tags are usually 2 mm to 5 mm in diameter or as large as 5 cms in diameter. Skin tags are thought to occur in characteristic friction locations where the skin rubs with each other or coming in contact with ornaments. Usually in skin tag there are no hairs, mole or skin structures present.

ABSTRACT: Skin tags are small papillomas found in middle aged and elderly people. People with close family members who have skin tags are more likely to develop it. Initially these skin tags can be very small, flattened like a pinhead bump. Later they can grow to a diameter from 2mm to 1cm; some may even reach 5 cm size. Human papilloma virus (HPV) is seen in 80% of the evaluated skin tag.

Definition and pathophysiology: Skin tags (acrochordons), the synonyms are fibroepithelial polyp, cutaneous papillae, cutaneous tag, fibroma molluscum, fibroma pendulum, papilloma coli, soft fibroma, templeton skin tags are small papillomas found commonly on the sides of the neck, axilla, upper trunk and eye lids of middle aged and elderly people. Obesity, pregnancy, menopause and endocrine disorders such as acromegaly predispose to this benign epithelial hyperplastic lesion. Although controversial, it has been suggested that multiple skin tags may be a marker for diabetes mellitus or impaired carbohydrate metabolism and may indicate a significantly increased risk of chronic polyps if they occur rapidly over a short period of time. One study using polymerase chain reaction (PCR) found low but detectable levels of human papilloma virus (HPV) in 80 % of the evaluated skin tags, with subtypes 6 and 11 being present 98% of the time. Skin tags are invariably benign, non-cancerous tumors of skin. Very large skin tags may burst under pressure.

Skin tags are cosmetically bothersome but asymptomatic. Occasionally, a lesion will twist on its stalk and become painful, erythematous and necrotic. The lesions are single or multiple, 1 to 3 mm in diameter soft, flush coloured or hyperpigmented, oval or round papillomas. They are usually pedunculated. Treatment of obesity or underlying endocrinologic abnormality will decrease the likelihood of new lesion formation. Lesions may be confused with seborrheic keratosis, dermal nevi, neurofibromas, or warts. If multiple skin tags have occurred over a short period of time it is due to human papilloma virus serotype type 11 and 16.

Skin tags are composed of a core fibres and ducts, nerve cells, fat cells, and coverings of epidermis. Skin tags are rarely associated with Birt-Hogg-Dube's syndrome, polycystic ovary syndrome. A skin tag is a polypoid outgrowth of both epidermis and dermal fibrovascular tissue. The more commonly occurs in the skin creases or folds. 20% of lesions mainly caused by skin rubbing against some ornaments and clothings.
Illegal steroid use: they interfere with the body and muscles, causing the collagen fibres in the skin to band, allowing skin tags to be formed.

**DISCUSSION:** There are extremely rare instances where a skin tag may become precancerous or cancerous. Skin tags may bleed, grow large, and display multiple colours like pink, brown, red or black may require biopsy to exclude other causes like skin cancers. Some skin conditions mimic skin tag includes seborrhic keratosis, moles, warts, cysts, milia, neurofibromas, and nevus lipomatosus and rarely skin cancers like basal cell carcinoma, squamous cell carcinoma or malignant melanoma. Treatment freeze with liquid nitrogen – in this process the HPV is not destroyed; burn tag using electric cautery or electrosiccation is better method which destroys the HPV, surgical removal with blade or scissors with or without anesthesia it bleeds and HPV spreads.

**CASE REPORT:** A 47 yrs old female had multiple skin tags in the neck, and soft pedunculated skin tag with irregular surface measuring 4x 3cms. 5 x 2 cms in the right side of the abdomen. Blood sugar fasting – 112 mg %, USG abdomen: No abnormalities detected. Weight: 45 kgs.

Operative procedure: Injection tetanus toxoid 0.5 ml given SC before operation. Under aseptic precautions, and under local anaesthesia with 2% xylocaine infiltration (after test dose), lesion was clamped at the peduncle with an artery forceps. With electrosurgical spark, pedunculated skin tag was excised without bleeding. The biopsy specimen sent for analysis to pathology department. Injection Ampiclox 500 mg bid/IM for 7 days, T. chymoral forte 1 tid before food for 7 days, Neosporin powder applied to the cut end and local dressing done, T. griseofulvin 250 mg for three months as immunomodulator for Human papilloma virus to prevent recurrence.

**KEY POINTS:** 80 % of skin tags are due to human papilloma virus. Griseofulvin should be given as immunomodulator for HPV. 20 % of lesions mainly caused by skin rubbing against some ornaments and clothings.

**Biopsy results from pathology dept. Sree Mookambika Institute of Medical sciences, Kulasekaram:** 47 yrs female specimen skin tag, Gross container received contains polypoid spongy mass covered with skin with a stalk measuring 4x3. 5x2cm, Microscopy: Section show the histological structure with thinned out epidermis in papillae and few koilocytotic changes. No other dermal appendages seen.

**Impression: skin tag.**

**CONCLUSION:** A skin tag of 5 cm length on histopathological report shows presence of koilocytes and are having the perinuclear halo around the nucleus and nuclear enlargement (two to three times normal size), Irregularity of the nuclear membrane contour, a darker than normal staining pattern in the nucleus, known as Hyperchromasias confirmed to be caused by human papilloma virus. Large skin tags like 5 cms diameter or skin tag is bleeding or coloured dark to be sent for biopsy to rule out cancers.
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FIG 1: microphotograph (H&E 40 X)-shows - Nuclear enlargement (two to three times normal size), Irregularity of the nuclear membrane contour, a darker than normal staining pattern in the nucleus, known as Hyperchromasia. The histo pathology report confirms the human papiloma virus infection in the skin type with pathagnoamonic findings of Koilocytes may have the vacuole around the nucleus, known as a perinuclear halo.(pathagnamonic)

FIG :2: soft pedunculated skin tag with irregular surface measuring 4x 3cms. 5 x 2cms in the right side of the abdomen.
CASE REPORT

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