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Oral Pathology Den 2311

**Condyloma Accuminatum (HPV)**

Condyloma Accuminatum (HPV) are anogenital warts originating from human papillomavirus (HPV). HPV is a double-stranded DNA virus that is spread through sexual contact. There are over 100 types of HPV strains recognized and with 40 strains known to affect the anogenital area. HPV strains 6 and 11 are the most common strains that cause Condyloma Accuminatum causing 90 percent of anogenital warts but present a low risk for developing malignancy. HPV is known to be the most common sexually transmitted infection worldwide with 9 to 13% of the population infected. This HPV infection affect individuals between the ages of 20 to 39 years’ old who have risk factors of high numbers of sexual partners, possible history of chlamydia, gonorrhea, human immunodeficiency virus (HIV), and/or AIDS.

Lesions may occur on the external genital skin including the vulva, penis, scrotum, perianal area, the upper/inner thighs, suprapubic skin and may extend into mucosal sites such as the vagina, cervix, urethra, anus, and/or rectum. Due to oral sexual intercourse activity they may also occur on non-genital sites including the oral mucosa where the most common intraoral sites involve the labial mucosa, lingual frenum, tongue, lips, and soft palate. Condyloma Accuminata usually appear as raised, skin-colored, fleshy papules, or hyper pigmented that can be broad, flat, or have a cauliflower-like appearance that range in size from one to five millimeters in diameter. These lesions can become soft, superinfected, and/or ulcerated which can be locally or generally aggressive and destructive with possible malignant transformations.

The molecular pattern of HPV contains oncogene which encodes proteins that stimulate cell proliferation. These proteins enable the virus to replicate while the host cells undergo cell division. As the number of virally infected host cells grows the layers of the epidermis thicken leading to acanthosis and the appearance of warts. The diagnosis of Condyloma Accuminata is most often made visually with thorough extra-oral and intraoral examinations but in some cases require confirmation with a biopsy. A biopsy can indicate if the lesions are abnormal, if the patient is immunocompromised, confirms the diagnosis, if the lesions do not respond to standard therapy, or if the disease worsens during therapy.

When biopsied, Condyloma Accuminatum (HPV) reveals epidermal acanthosis with overlying of hyperkeratosis, hyperplastic papillary squamous epithelium with parakeratosis, and variable koilocytotic atypia which is nuclear wrinkling with perinuclear clearing. It is also shown to be very vascular and have enlarged nuclei with halos. Besides the biopsy there are other testing available that can also be made such as colposcopy to confirm and/or magnify the lesion for improved visualization, confirmatory testing and gene typing via DNA detection. Furthermore, the acetic acid test can be used to evaluate the lesion as well but is not valid for screening as it has been shown to give high false-positive rates. In this acetic acid test five percent acetic acid gets applied to the lesion then following the application, white areas of the lesion presents concern for dysplasia, this is when a biopsy of the lesion is the appropriate method to follow. If lesions are clinically or histopathologically diagnosed, it is strongly recommended that the patient goes for testing for the possibility of underlying immune dysfunction (HIV/AIDS).

There are numerous of treatment options available for patients with Condyloma Accuminatum (HPV). Treatment of anogenital warts should be suggested by wart size, amount, anatomic site, patient preference, cost of treatment, convenience, adverse effects, and provider recommendations. There are topical gels/creams available such as Imiquimod 3.75% or 5%, Podofilox 0.5% solution or gel, Sinecatechins 15% ointment, and etc.which all can be prescribed by a healthcare provider. Other treatments available are cryotherapy, surgical removal either by tangential scissor excision, tangential shave excision, curettage, laser, electro surgery, the use of trichloroacetic acid (TCA) or bichloroacetic acid (BCA) to destroy warts by chemical coagulation of proteins, and 5-aminolevulinic acid (ALA) with photodynamic therapy which is a developing treatment for Condyloma Accuminatum because this treatment was found to be more effective, simpler, and have lower recurrence rates than laser treatments. To see change these lesions may require multiple treatments or a combination of treatments over time. Surgical excision is the only treatment option with clearance rates near 100% although there is a possibility that Condyloma Accuminatum (HPV) can recur. Without treatment, Condyloma Accuminata can develop into a potential malignant lesion called Buschke-Lowenstein tumors. Signs for this potential malignant lesion includes slow growth of a bulky, cauliflower-shaped mass. It often spreads into surrounding tissues and causes damage, pain, ulcerations, abscess or fistulas around the mass.

As hygienists we should be very observant in completing thorough extra oral and intra oral examinations during our dental hygiene process of care. We must assist the dentist in locating probable Oral Condyloma Accuminata that way we can provide appropriate counselling and education when informing patients of the potential health risks followed by HPV and create possible patient referrals as needed. If applicable, we can inform our patients to speak to their healthcare provider about the HPV vaccine. This vaccine is highly effective in preventing persistent HPV infections and cervical cancer associated with the HPV subtypes covered by the vaccine but cannot cure an existing HPV infection or an established HPV associated with cancer. This vaccine is recommended for adolescents at an age before the onset of sexual activity. We must also keep in mind the possible signs of child abuse we may have to report if HPV lesions in children are present, this would be a possibility of sexual abuse which is why strict criteria should be used when diagnosing Oral Condyloma Accuminata. It is a must to have follow-up visits after several weeks of oral treatment that way we can answer any questions about the use of any medications prescribed, address any possible oral side effects our patients may be experiencing, and/or facilitate the assessment of the response to treatment. As future dental health professionals we must encourage a safe and healthy environment for both staff and patients while promoting the best oral hygiene process of care and minimize as much risk factors from our daily assessments as possible.

**Reference Page:**

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