



## Photodynamic therapy, a non-invasive technique effective against the Human Papillomavirus

Terapia fotodinámica, técnica no invasiva efectiva contra el Virus del Papiloma Humano

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### Dear Readers:

Photodynamic therapy (PDT) involves the use of photosensitizing agents in conjunction with a light source to kill cancer cells. It is a treatment that uses drugs that only work after being activated by certain types of light. PDT may also be called photoradiotherapy, phototherapy, or photochemotherapy.<sup>(1)</sup>

The photosensitizing agent is placed into the bloodstream using light from a vein or directly into the skin. Over a period of time the drug is absorbed by the cancer cells. Light is then applied to the area being treated. The light causes the drug to react and form a special type of oxygen molecule that kills the cells. PDT may also be helpful by destroying blood vessels that feed cancer cells and alerting the immune system to attack the cancer. It can take from a few hours to a few days, depending on the drug.<sup>(1)</sup>

Among the advantages of this therapy is its effectiveness in surgery or radiotherapy for the treatment of various types of cancer and precancerous lesions. Its correct use leaves no side effects, it is less invasive than surgery and can be done on an outpatient basis. Among the disadvantages, it can only be effective where the light reaches, so it cannot be used in deep organs or with a wide extension. It is not recommended for photosensitive people or it may leave some sensitivity to it after treatment.

Recently this treatment method was used by Dr. Eva Ramón Gallegos to work with a group of 420 female patients between the ages of 25 and 40 who had the Human Papillomavirus (HPV) and was effective in 29 of them, in whom the virus could be eliminated.

(HPV) is recognized as one of the most common sexually transmitted infections (STIs) in the world, affecting a large percentage of sexually active people at some point in their lives. Prevention remains the essential tool in the fight against this virus, in addition to vaccination, regular medical examinations and condom use are some of the effective strategies to counteract the incidence and prevalence of this infection.

This medical and scientific advance is a major blow to cervical cancer and other cancers in which the human papillomavirus plays a major role in their development and appearance. Photodynamic therapy is not new, and it shows that with current means, important health results can be achieved.

## BIBLIOGRAPHIC REFERENCES

1. American Cancer Society. Medical and Health content on cancer.org [Internet]; 2025 [citado 27/01/2025]. Disponible en: [www.cancer.org/cancer/acs-medical-content-and-news-staff.html](http://www.cancer.org/cancer/acs-medical-content-and-news-staff.html)