

Hydrochlorothiazide – risk of non-melanoma skin cancer

Prescribing tip for actioning by practice team

SUN
SAFETY!!

Hydrochlorothiazide-containing medicinal products are used to treat hypertension, as well as oedema associated with cardiac or hepatic disease and chronic heart insufficiency (heart failure). In the UK, hydrochlorothiazide is only available in fixed-dose combination with other medicines.

A recent MHRA report ⁽¹⁾ highlights that two recent pharmaco-epidemiological studies ^(2,3) in Danish nationwide data sources have shown **a cumulative, dose-dependent, association between hydrochlorothiazide and non-melanoma skin cancer. The known photosensitising actions of hydrochlorothiazide could act as possible mechanism for this risk.**

Pedersen and colleagues reported that, assuming causality, 9 in 100 squamous cell carcinoma (SCC) cases and fewer than 1 in 100 basal cell carcinoma (BCC) cases that were diagnosed during the study period may have been attributed to hydrochlorothiazide use. ⁽²⁾ Pottegård and colleagues reported that 11 in 100 of SCC lip cancer cases occurring in the study period may have been attributed to hydrochlorothiazide use. ⁽³⁾

Based on the results of the two Danish epidemiological studies, a best estimate of the increased risk is 7.7-fold for SCC and 1.5-fold for BCC based on a length of usage of **hydrochlorothiazide 12.5mg daily for 44 years or 25 mg daily for 22 years. For hypertension, products containing 25 mg of hydrochlorothiazide are indicated only if patients are not adequately controlled on lower-dose products.**

The study authors' analyses did not find a similar association for risk of basal cell carcinoma (BCC) or squamous cell carcinoma (SCC)⁽²⁾ and SCC lip cancer⁽³⁾ with overall or cumulative use of other diuretics and other antihypertensives, including bendroflumethiazide, calcium channel blockers, angiotensin-converting enzyme inhibitors, angiotensin II receptor antagonists, and furosemide.

Advice for healthcare professionals

- inform patients taking hydrochlorothiazide-containing products of the risk of non-melanoma skin cancer, particularly in long-term use, and advise them to regularly check for and report any new or changed skin lesions or moles
- reconsider the use of hydrochlorothiazide in patients who have had previous skin cancer
- examine all suspicious moles or skin lesions (potentially including histological examination of biopsies)
- advise patients to limit their exposure to sunlight and UV rays and use adequate protection when exposed to sunlight and UV rays to minimise the risk of skin cancer
- report suspected adverse reactions associated with medicines to [the yellow card scheme](#).

References

1. <https://www.gov.uk/drug-safety-update/hydrochlorothiazide-risk-of-non-melanoma-skin-cancer-particularly-in-long-term-use>
2. Pedersen SA, et al. Hydrochlorothiazide use and risk of non-melanoma skin cancer: A nationwide case-control study from Denmark. J Am Acad Dermatol 2018; 78: 673–81.
3. Pottegård A, et al. Hydrochlorothiazide use is strongly associated with risk of lip cancer. J Intern Med 2017; 282: 322–31.

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