



SDI Review Form 1.6

Journal Name:	Journal of Cancer and Tumor International
Manuscript Number:	Ms_JCTI_39590
Title of the Manuscript:	Reduction of UV-Induced Skin Tumours in Hairless Mice by Topical Non-Steroidal Anti-Inflammatory Drugs
Type of the Article	Short Research Article

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<u>Compulsory</u> REVISION comments	Good article on skin cancer development during NSAII treatment. It can published as it.	



UNDER PEER REVIEW

Short Research Article

Reduction of UV-Induced Skin Tumours in Hairless Mice by Topical Non-Steroidal Anti-Inflammatory Drugs

ABSTRACT

Aims: Inhibition of ultraviolet-A and -B (UVA+B) skin tumour formation by topical treatment with non-steroidal anti-inflammatory drugs (NSAIDs) was investigated in SKH-1 hairless mice.

Methodology: A UV skin tumour study was designed. Group of mice were irradiated with daily doses of UVA+B for approximately 10 min per day, 5 days per week for 10 weeks. After this 10-week, there was no further UV-exposure. The integrated UV-A irradiance (280-320 nm) was $2.4 \times 10^{-4} \text{ W/cm}^2$ and the UV-B irradiance (320-400 nm) was $1.8 \times 10^{-3} \text{ W/cm}^2$. Mice were divided into 4 groups (n=20 per group). Group 1 was treated with methanol; Group 2 received 2% indomethacin in methanol; Group 3 received 2% paracetamol in methanol; Group 4 received 2% flurbiprofen in methanol. All groups received their treatment once a day, five days per week for 25 weeks. Mice were euthanized after 35 weeks.

Results: The test NSAIDs in methanol were effective in reducing the incidence and size of the skin tumours induced by UVA+B, with a significantly lower average number and/or area of skin tumours observed in the NSAID-treated mice compared to the methanol control animals ($P < .05$).

Conclusion: The results support the hypothesis that topically applied indomethacin, paracetamol, and flurbiprofen can provide protection against skin cancer, even when applied well after the skin has been exposed to the damaging effects of UV-light.

Key words: Chemoprevention; UV-induced skin tumour; non-melanoma; NSAIDs; topical formulations; skin cancer.



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Minor REVISION comments	no	
Optional/General comments	It can published as it.	

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