

Corn Silks to Overcome Osteoporosis

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Corn is a staple food that is often found across Indonesia. Many like it as it is tasty and is nutritious. But who knows that its silks (*Stigma maydis*) also have benefits for human health. Corn silk (*stigma maydis*) has the potential to overcome osteoporosis that often occurs in women due to the reduced level of estrogen hormones.


“Up to now corn silk has not been used. It actually has phytoestrogen compound potential for osteoporosis treatment,” said Amalia Miranda, UGM student of Faculty of Pharmacy on Friday (15/1) on campus.

Starting on from this idea, Amalia and fellow students Yoce Aprianto, Lora Johana Tamba, and Naufa Hanif, made a research exploring the potential of silks to overcome osteoporosis in post-menopausal women.

They joined the Cancer Chemoprevention Research Center (CCRC) group at their faculty since 2015 and did the research under the supervision of Dr.rer.nat. Endang Lukitiansih, Apt.

They collected the material from farmers in Purwomartani area of Sleman regency. The extracted corn silk is then tested in vivo onto 35 Sprague Dawley mice.

Amalia said the mice were ovariectomy in advance to experience estrogen deficiency. After 30 days of treatment and the mice undergone surgery, it is known that the silk can improve the histological profile and bone density of the tested animal.



Yoce added the improved density in the animal was a parameter usable for antiosteoporosis evaluation. The maximum result happened in dosage of 500 mg/kgBB of silk extract.

“It is proven that the silk extract can increase bone density of the tested animal,” he said.

Even so, Yoce said, further studies were needed, including in vitro, genotoxic, and toxicity tests before being applied for wider use.

“In the future, further studies are needed to know whether the extract of silk is safe for human use,” he concluded.

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