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Sea pearl as a source for calcium supplementation

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Dear Editor,

Sir, pearl is a natural product that is well known for its good property for skin care. Pearl is composed of about 90% calcium carbonate, 5% organic compounds (msi60, nacrein, msi31, prismaticin-14 and aspein) and 5% water. The main component, calcium carbonate crystals, is stable and can be applied for skin care. There are many reports on medical effect of pearl on several skin diseases such as atopic dermatitis and UV dermatitis^[1]. Also, it is reported that pearl can help reduce oxidative stress^[1]. There is no doubt that the dermatological usefulness of pearl is confirmed. However, topic on non dermatological effect is less mentioned. As a natural product from the sea, pearl can be grinded and intaken. Some reports mentioned using pearl as a source for calcium supplementation. The good reports are the use of pearl for management of patients with the problem of osteoporosis^[2,3]. It can be seen that pearl can be a good and safe natural source of calcium supplementation. Chen *et al.* found that "pearl powder is a beneficial source of calcium for adults and that nanonization improves its calcium bioavailability"^[3]. The nutritional effect, especially for calcium supplementation, of pearl should be further systematically investigated.

An example of report concerning on the calcium supplementation effect by sea pearl is the report by Vujasinović-Stupar *et al.*^[2]. Vujasinović-Stupar *et al.* noted that calcium-carbonate (CaCO₃) was

the main important component of pearl. They reported that "six-month supplementation with CaCO₃ of the biological origin led to the increase of bone mineral density" and they also concluded that "tolerance of CaCO₃ of the biological origin was excellent and free of any adverse events"^[2]. Recently, with the advanced nanotechnology, the new nano-pearl powder was successfully developed^[3]. Chen *et al.* successfully developed nanonized pearl powder and studied its bioavailability^[3]. Chen *et al.* mentioned that "pearl powder is a beneficial source of calcium for adults and that nanonization improves its calcium bioavailability"^[3].

Conflict of interest statement

We declare that we have no conflict of interest.

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