



# Giant cells and osteoclasts present in bone grafted with nacre differ by nuclear cytometry evaluated by texture analysis

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Titre	Giant cells and osteoclasts present in bone grafted with nacre differ by nuclear cytometry evaluated by texture analysis
Type de publication	Article de revue
Auteur	Chappard, Daniel [1], Kün-Darbois, Jean-Daniel [2], Pascaretti-Grizon, Florence [3], Camprasse, Georges [4], Camprasse, Serge [5]
Editeur	Springer
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Résumé en anglais	<p>Nacre (mother of pearl) is a natural biomaterial used to prepare orthopedic devices. We have implanted screws and plates made with nacre in five sheeps. Bone were harvested after two months and embedded in poly(methyl methacrylate). Blocks were saws and the thick slabs were grinded, polished and surface stained. Sections were photographed at an <math>\times 1000</math> magnification. Giant cells were found in contact with nacre in eroded areas and true osteoclasts were found at distance in the neighboring bone in Howship lacunae. A texture analysis of the nuclei of giant cells and osteoclasts was done using the run-length method of the MaZda freeware. The size of the nuclei was reduced in osteoclast and their mean gray level appeared reduced. Texture analysis revealed that chromatin had a completely different pattern in giant cells when compared to osteoclasts. Giant cells had a fine repartition of the chromatin with large clear areas around prominent nucleoli. On the contrary, osteoclast nuclei had chromatin blocks evenly dispersed in the nuclei. This reflects the different origin of these cells expressing different functions.</p>
URL de la notice	<a href="http://okina.univ-angers.fr/publications/ua20291">http://okina.univ-angers.fr/publications/ua20291</a> [6]
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## Liens

- [1] <http://okina.univ-angers.fr/daniel.chappard/publications>
- [2] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=20272>
- [3] <http://okina.univ-angers.fr/f.pascaretti/publications>
- [4] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=18133>
- [5] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=39728>
- [6] <http://okina.univ-angers.fr/publications/ua20291>
- [7] <http://dx.doi.org/10.1007/s10856-019-6293-z>
- [8] <https://link.springer.com/article/10.1007%2Fs10856-019-6293-z>
- [9] <http://www.ncbi.nlm.nih.gov/pubmed/31468139?dopt=Abstract>

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