



**Fig. 24.** Endothelial cell number after 7 days incubation with MNP hydrogels (Finetti et al. Unpublished results).

No signs of infection or rejection were observed in the implant location during the 7 day period of the experiment as the implants became progressively infiltrated by fibrovascular tissue. Skin that was in close proximity to all implants was noted to be normal and healthy.

This *in vivo* data document that hybrid hydrogels are processed biologically: although the CMC scaffold is degraded, the MNPs remain in the subcutaneous tissue where they induce inflammatory cell infiltrate at the site of implantation. The use of a low concentration of MNPs embedded in CMC gels could reduce their *in vivo* toxicity. Considering the nature of MNPs, Fe<sub>3</sub>O<sub>4</sub> showed a better safety profile, probably due to the slow prolonged release of Co ions from cobalt-ferrite MNPs. This data clearly indicates the possibility of clinical exploitation of CMC hydrogel containing low percentage of MNPs.

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