## Supplementary data

Table 2. Point estimates of mean bone mineral density ( $\mathrm{g} / \mathrm{cm}^{2}$ ) and as percentage of baseline values ( $100 \%$ ) with $95 \%$ confidence intervals per region of interest of the impacted bone graft at each study interval ${ }^{\text {a }}$

| Region | 0 months $\mathrm{n}=20$ | 3 months $\mathrm{n}=20$ | 6 months $\mathrm{n}=20$ | $\begin{aligned} & 1 \text { year } \\ & n=20 \end{aligned}$ | 2 years $\mathrm{n}=17$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Cranial, g/cm ${ }^{2}$ | 2.5 (2.1-2.8) | $2.6{ }^{\text {b }}$ (2.3-3.0) | $2.7{ }^{\text {b }}$ (2.3-3.0) | $2.8{ }^{\text {b }}$ (2.4-3.0) | $2.8{ }^{\text {b }}$ (2.5-3.1) |
| \% | 100 (97-104) | $+6^{\text {b }}$ (2-10) | $+9^{\text {b }}$ (5-13) | $+13^{\text {b }}$ (8-18) | +14 ${ }^{\text {b }}$ (6-22) |
| Medial, $\mathrm{g} / \mathrm{cm}^{2}$ | 2.3 (2.0-2.7) | 2.4 (2.1-2.8) | $2.4{ }^{\text {b }}$ (2.1-2.7) | $2.5{ }^{\text {b }}$ (2.2-2.8) | $2.5{ }^{\text {b }}$ (2.1-2.9) |
| \% | 101 (97-106) | $+6^{\text {b }}$ (1-11) | $+6^{\text {b }}(0-11)$ | $+9^{\text {b }}$ (3-16) | $10^{\text {b }}$ (1-18) |
| Caudal, g/cm ${ }^{2}$ | 2.3 (2.0-2.6) | 2.3 (2.0-2.7) | 2.3 (1.9-2.7) | 2.3 (1.9-2.7) | 2.4 (2.0-2.7) |
| \% | 101 (97-106) | +3 (-3-8) | +3 (-3-9) | +4 (-3-11) | +4 (-6-16) |
| Total, $\mathrm{g} / \mathrm{cm}^{2}$ | 2.4 (2.1-2.6) | $2.4{ }^{\text {b }}$ (2.2-2.7) | $2.5{ }^{\text {b }}$ (2.2-2.8) | $2.5{ }^{\text {b }}$ (2.3-2.9) | $2.6{ }^{\text {b }}$ (2.2-2.9) |
| \% | 101 (98-104) | $+4^{\text {b }}(1-8)$ | $+6^{\text {b }}(2-10)$ | $+8^{\text {b }}(4-13)$ | $+9^{\text {b }}(2-15)$ |

a BMD changes were tested for significant difference compared with the postoperative value in a linear mixed model.
${ }^{\text {b }}$ Statistically significant different BMD value compared with the baseline value.

Table 3. Point estimates of clinical scores over time with $95 \%$ confidence interval ${ }^{\text {a }}$

| Type | Preoperative $\mathrm{n}=20$ | 3 months $\mathrm{n}=20$ | 6 months $\mathrm{n}=20$ | $\begin{aligned} & 1 \text { year } \\ & n=20 \end{aligned}$ | $\begin{gathered} 2 \text { years } \\ \mathrm{n}=19 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Oxford Hip Score | 39 (35-43) | $31^{\text {b }}$ (27-35) | $27^{\text {b }}$ (23-32) | $26^{\text {b }}$ (21-31) | $25^{\text {b }}$ (17-34) |
| SF 12-physical | 46 (34-58) | 40 (28-51) | 51 (40-64) | 50 (37-63) | 50 (34-67) |
| SF12-mental | 50 (38-58) | 49 (40-61) | $61^{\text {b }}$ (49-72) | $58^{\text {b }}$ (46-70) | $63^{\text {b }}$ (49-78) |
| VAS-pain | 60 (46-71) | $35^{\text {b }}$ (25-48) | $29^{\text {b }}$ (19-40) | $29^{\text {b }}$ (17-42) | $31^{\text {b }}$ (19-48) |
| VAS-satisfaction | - | 71 (59-82) | 78 (65-89) | 77 (65-88) | 77 (63-90) |

[^0]

Figure 4. Point estimates of mean bone mineral density (BMD) changes of the impacted bone graft $\left(\mathrm{g} / \mathrm{cm}^{2}\right)$ with $95 \%$ confidence intervals during 2 years' follow-up. The mean total BMD (grey) is divided into 3 regions of interest: cranial (green), medial (red), and caudal (blue) to the acetabular cup.


[^0]:    ${ }^{\text {a }}$ Results were tested for significant difference compared with the postoperative value in a linear mixed model. Oxford Hip Score (OHS), SF12-score, and a visual analogue scale (VAS) for pain and satisfaction: " 0 " is minimum score and "100" is maximum score.
    b Statistically significant different BMD value compared with the baseline value.

