**Introduction:**

Post parathyroidectomy hypocalcemia is a frequent situation, generally due to a definitive or transient hypoparathyroidism. The « Hungry bone syndrome », is a rare severe hypocalcemia etiology, the Hungry Bone Syndrome (HBS) was first described by Albright and Reifenstein in 1950, in patients with hyperparathyroidism with a severe and prolonged hypocalcemia after parathyroidectomy assigned to an excessive osseous avidity, occurring in intense bone remodeling situations like fibrous osteitis or renal osteodystrophy;

We report a case of a 41 years old woman, had been undergoing chronic hemodialysis three times a week since 2008. Our patient suffered from muscles illness with functionally impotency

Biologically she had a tertiary hyperparathyroidy with a calcemia at 102 mg/l and hyperphosphoremia at 56 mg/l comparing to a PTH at 1156 pg/ml with PHL up to 1114 UI/l.

Cervical sonography objectived a parathyroidian adenoma about 12mm of diameter, confirmed with MIBI scintigraphy. At surgery, hyperplasia was documented and all four parathyroid glands were removed.

At immediate post operative follow-up the patient presented a severe hypocalcemia getting to 1.27 mmol/l, associated to a hypophosphoremia and elevation of the alkaline phosphatase by 4000 UI/l, by what we diagnosed a “Hungry bone syndrome”.

To control calcemia, we had to administrate a consequent dose of calcium and vitamin D, reaching 8000mgr /day of calcium gluconate, and 4 µg /day of calcitriol (see table ).

In the 6 first days parenteral treatment supplementation was associated .

None of the calciuria nether the magnesemia could be obtained because of the anuria.

As we can notice in the table , we had to wait 6 month before getting normalization with decreasing of the calcium and vitamin D requirement and ordinary osseous turn over.

At clinic outcomes we noticed a disappearance of the muscles illness and recovery of the motricity.

Over 8 month, the bone density increased in lumbar by 18 % (from 0,631g/cm² to 0,747 g/cm²), the bone density in increased in left femoral neck density increased by 14 % (from 0,768 g/cm² to 0,873 g/cm²).

**Discussion:**

HBS is a relatively uncommon complication of parathyroidectomy for severe PHPT associated with preoperative high bone turnover. He term ‘hungry bone syndrome’ (HBS) has been coined to the profound (serum calcium 12.1 mmol/l) and prolonged (longer than 4th day post-operatively) hypocalcaemia associated with hypophosphathaemia.

He reported amount of calcium supplementation required to treat the severe hypocalcaemia varies between 6 and 12 g/day(2) with concomitant use of adequate doses of active metabolites of vitamin D (calcitriol) oral alfalcacidol (2–4 µg/day).

**Conclusion:**

the « Hungry bone syndrome », is a rare severe hypocalcemia situation, which is difficult to control; requiring an adequate managing . The prevention of this disease could rely on a good post operative vitamin D deficit supplementation.

**Table 1 : profil de la calcémia et dose de calcium**

<table>
<thead>
<tr>
<th>Jour aprés la chirurgie</th>
<th>Dose quotidienne de calcium (mg)</th>
<th>Calcémia (mg)</th>
<th>Phosphatémie (mg)</th>
<th>Phosphatasi (UI/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 jour</td>
<td>3 g / 2 µg</td>
<td>51 mg</td>
<td>30 mg</td>
<td>2800 UI/L</td>
</tr>
<tr>
<td>7 jour</td>
<td>4 g / 4 µg</td>
<td>62 mg</td>
<td>28 mg</td>
<td>3400 UI/L</td>
</tr>
<tr>
<td>15 jour</td>
<td>8 g / 4 µg</td>
<td>70 mg</td>
<td>18 mg</td>
<td>4000 UI/L</td>
</tr>
<tr>
<td>1 mois</td>
<td>8g / 4 µg</td>
<td>85 mg</td>
<td>14 mg</td>
<td>2000 UI/L</td>
</tr>
<tr>
<td>2 mois</td>
<td>6g / 3 µg</td>
<td>85 mg</td>
<td>14 mg</td>
<td>389 UI/L</td>
</tr>
<tr>
<td>4 mois</td>
<td>4g / 2 µg</td>
<td>90 mg</td>
<td>22 mg</td>
<td>1059 UI/L</td>
</tr>
<tr>
<td>6 mois</td>
<td>2g / 1 µg</td>
<td>88 mg</td>
<td>30 mg</td>
<td>110 UI/L</td>
</tr>
</tbody>
</table>

**Fig 1 : densité osseuse augmentée en lombar**

**Fig 2 : densité osseuse augmentée en lombar femorale**

**Références :**

