INTRODUCTION

Surgery for thumb duplication involves removal of the more hypoplastic thumb, reconstruction of a collateral ligament, and reattachment of the thenar musculature with or without transfer of an island flap to improve the contour of the thumb. The most common complications after surgery are recurrence of the axial deformity, joint instability, and decreased range of motion (Patel, 2013). We believe that the decreased range of motion and recurrence of the axial deformity is a consequence of the condition rather than the surgery. The aim of this study was to investigate the radiographic features of the joints in untreated adults with thumb duplication.

MATERIAL AND METHODS

Twelve hands of 10 adults with thumb duplication were included in the study. The radiographic findings were classified according to the Wassel system. Narrow joint space, intra-articular incongruity, and joint fusion were recorded.

RESULTS

<table>
<thead>
<tr>
<th>Wassel's Classification</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VII</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of thumbs</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>2</td>
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Radiographic abnormalities were observed in 13 joints, including narrow joint space in 1 metacarpophalangeal (MCP) joint and 1 interphalangeal (IP) joint, joint fusion in 2 MCP joints, and intra-articular incongruity in 4 MCP joints and 5 IP joints.

DISCUSSION

Patients with thumb duplication often have bone, joint, and soft tissue abnormalities. We believe that thumb duplication with symphalangism may be more common than previously reported. We did not find any previous reports of intra-articular incongruity in the MCP or IP joints of adults with thumb duplication. Considering the radiographic abnormalities observed in this study, we think it is unlikely that patients with thumb duplication will have a full range of motion in both the MCP and IP joints after reconstructive surgery.