

置し、子宮周囲の血流確認のため血管造影方針となった。輸血施行後、血管造影室移動予定であったが、輸血ポンピング施行するも血圧、心拍数共に安定せず、経腹超音波断層法で子宮内貯留増大を認め、重度の弛緩出血と診断し、子宮全摘の方針に切り替えた。術後ICU入室となったが、その後の経過は良好であり退院となった。術後病理検査結果では癒着胎盤を認めた。また、羊水を疑う粘性成分が子宮筋層内に認められたが、浜松医科大学に郵送した検体では羊水塞栓症は否定的であった。

【まとめ】癒着胎盤のリスクファクターは様々なものが報告されているが、分娩前に判明する症例は少ない。今回、帝王切開後子宮全摘して判明した癒着胎盤の一例を経験した。当院のような大学病院であれば血管造影など子宮を温存出来る治療方法は選択肢になるが、処置開始までの血圧コントロールが困難な場合、血管造影ではなく子宮全摘を選ぶことが重要な症例もある。

#### 4-I-1.

### Bone regeneration by human dental stem cells using helioxanthin derivative in endochondral ossification

(大学院博士課程3年口腔外科学分野)

○山川 樹

(東京医科大学 口腔外科分野)

古賀 陽子、藤居 泰行、佐藤麻梨香

菅野 勇樹、近津 大地

Background: Human dental stem cells (DPSCs) have pluripotency and can differentiate into multiple cell lineages. Furthermore, they can be isolated from extracted teeth that have become unnecessary. Bone defect diseases affect patients functionally and psychologically. To overcome such problems, simple and efficient method is required. Previously, our group reported that a helioxanthin derivative (TH)-induced DPSCs (TH-DPSCs) demonstrated highly efficient osteogenic differentiation in vitro and in mouse skull defect model. However, the effect of endochondral ossification by DPSCs remain unknown. Therefore, in this study, we verified endochondral ossification using established culture method of DPSCs and effects of

transplanted TH-DPSCs in mouse tibia fracture model.

Methods: DPSCs were obtained from the wisdom teeth of six healthy patients (19-29 years old), and cultured in normal medium and osteogenic medium with or without TH. To evaluate the regeneration of endochondral ossification and effects of transplanted cells of TH-DPSCs, we transplanted DPSCs using PKH26 into mouse tibia fracture.

Result: TH-DPSCs revealed that expression level of osteogenic differentiation makers was higher than others by qPCR. Bone formation was higher TH-induced DPSCs than others by radiological analysis. Furthermore, we demonstrated that transplanted TH-induced DPSCs were localized in the fracture and bone healing.

Conclusion: The result demonstrated that TH-DPSCs which was transplanted localized in the fracture sites and promoted bone healing in endochondral ossification.

#### 4-I-2.

### Investigation of the risk factor of fall in patient with cervical spondylotic myelopathy using the body sway test

(社会人大学院博士課程1年東京医科大学 整形医学科学分野)

○菊地 大樹、遠藤 健司、栗飯原孝人

鈴木 秀和、松岡 佑嗣、高松太一郎

村田 寿馬、前川 麻人、金澤 慶

山内 英也、澤地 恭昇、山本 謙吾

[Background] In cervical myelopathy, an increased fall leads complications, but its biomechanical factors is unclear. The purpose of this study was to analyze body sway and explore an objective index for predicting fall.

[Methods] The subjects were 36 patients (23 men, 13 women, mean age of 67.8 years) with cervical spondylotic myelopathy and ossification of the posterior longitudinal ligament (OPLL). Gender, age, BMI, presence of OPLL, and preoperative Japanese Orthopaedic Association (JOA) score, Romberg rate with eyes open and closed, the outer peripheral area, the total trajectory length, the sway speed, the density, the front and rear of the center of gravity, and the center of right and left sole pressure were compared to a history and number of falls.