LASER THERAPY APPARATUS, LASER THERAPY SYSTEM, AND DETERMINATION METHOD

Abstract

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[Object] To provide a laser therapy apparatus that is capable of determining a contact state between a tip portion of a laser catheter and a tissue, which includes a buried state of the tip portion in the tissue, a laser therapy system, and a determination method.

[Solving Means] It includes a connection portion 210 to which a second end portion of a laser catheter 300 is connected, the laser catheter 300 including a first end portion, the second end portion, and an electrode, a laser beam entering and exiting from an apical surface of the first end portion, the electrode being provided at outer periphery of the first end portion along an axial direction of the first end portion, an emission unit 110 configured to emit a laser beam to the second end portion connected to the connection portion 210, an optical state detection unit 130 configured to cause light reflected from the second end portion connected to the connection portion 210 to enter, and to detect an optical state of the entered reflected light, an electrical state detection unit 135 configured to detect an electrical state of the electrode via the second end portion connected to the connection portion 210, and a determination unit 150 configured to determine, based on the detected optical state and electrical state, a contact state between the first end portion and a therapy-target tissue treated by using the laser catheter.

Fig. 1