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Abstract

Most acute tympanic membrane (TM) perforations heal spontaneously, but 10-20% remains open as a chronic or permanent TM perforation (CTMP). Why the healing of CTMPs is arrested is still an enigma. Chronic perforations may lead to an impaired hearing ability and recurrent middle ear infections with draining ears. Traditionally, CTMPs are closed surgically, which is a costly and time-consuming procedure. Therefore, it should be a great advantage if one could develop simpler therapeutic strategies. Previous studies by us have shown that plasminogen (plg) is a proinflammatory regulator that accelerates cutaneous wound healing in mice. Interestingly, we have also shown that healing of TM perforations in plg-deficient mice is completely arrested and that these mice develop CTMPs due to the lack of plg. In fact the perforations in plg-deficient mice are so far the only true CTMP model. We have shown that CTMPs are caused by an arrested migration of keratinocytes, an abnormal recruitment and activation of inflammatory cells and a massive deposition of fibrin. In the initial TM perforation experiments mice were treated with intravenous plg and their CTMPs healed. More recent experiments with daily local injections of plg into the soft tissue surrounding the TM and topical application restored the ability to heal TM perforations in a dose-dependent manner. Treatment by plg was also tested in a CTMP model in rats. The CTMPs were caused by local application of hydrocortisone on acute TMPs. Plg, either applied by local injections or topically, also healed the CTMPs in rats. Plg was also tested on acute TMPs in wild-type mice and it was shown that local injections of plg accelerated the healing rate and quality of the healed TM. We have shown that local injection of plg into the soft tissue surrounding the TM or topically applied restored the healing ability of CTMPs in both mice and rats. Our data suggest that plg is a promising drug candidate for the treatment of CTMPs in humans, which are rational for the clinical studies on CTMPs in humans already in progress. The benefits of interprofessional education (IPE) and clinical training have been documented for learners, yet less is known about the perceptions of the faculty members who facilitate

the educational experiences, or the perspectives of patients who receive this interprofessional (IP) care. Aligning the priorities of these three stakeholders would inform a truly patient-centered medical home and also develop an IP workforce skilled and comfortable working in a PCMH delivery model. The objective of this report was to use focus groups to compare stakeholder attitudes about IP education and training. We conducted five groups with 42 participants: a "learner" group, a faculty group and three patient groups. The learner and faculty group represented the disciplines of medicine (students and residents), psychology, pharmacy, and physician's assistants. One of the patient groups was conducted in Spanish. This project was a formative research activity of Impact (Improving Patient Access, Care, and Cost through Training), a HRSA-funded program to expand the primary care workforce through IP education, training, and mentorship. Three raters analyzed group transcripts until common themes across the three groups emerged.

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