



Figure 9.7 Histology of wound sections stained with hematoxylin and eosin. Epithelialization at test wound edges at 5 days (a, 150); bacterial colonies present in control wounds (b, 300); neat test wound section at 10 days (c, 60); test wound with Rete pegs at 10 days (d, 150); test wound (e, 15) and control wound (f, 15) under polarized light at 15 days [65].

9.5 Opportunities and Future Thrust

In recent years, researchers have shown great interest in naturally available biopolymers like alginate, chitosan, collagen, etc. in exploring them in different biomedical applications. Particularly, alginate could be a great solution over other commercially available synthetic or natural wound dressings since alginate has various attractive properties such as biocompatibility, slight gelation surroundings, and easy modifications to develop alginate by-products with diverse properties. Alginate wound dressing can provide a safe clinical use and high rate of healing in wound care application. It can also be used easily as an implanted part in different biomedical applications. Alginate hydrogel-based wound-dressing materials are also available in the market. Hydrogel-based materials have higher moisture