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Abstract	:	<p>This study aimed to assess the antimicrobial activity of endophytic <i>Phyllosticta fallopiae</i> L67 isolated from Aloe vera against diabetic wound microorganisms and characterise their active fraction for biologically important metabolites. The dichloromethane (DCM) extract exhibited the most significant activity with inhibition zones ranging from 11.33 to 38.33 mm. The minimal inhibitory and lethality concentrations of DCM extract ranged from 78.13 to 2500.00 µg/ml and 625.00 to 5000.00 µg/ml, respectively. The extract showed teratogenicity and lethality in the zebrafish model, where peritoneal and hepatic oedema occurred at 62.50 µg/ml, and no abnormality appeared at 31.25 µg/ml. The extract also inhibited more than 82% biofilm formation. Bioassay-guided fractionation on DCM extract yielded 18 fractions and the most active fraction was subjected to UPLC-QTOF-MS/MS analysis. Flavones, stilbenes, flavanonols, isoflavonoids, phenolic glycosides and phenol derivatives were detected. In conclusion, endophytic <i>P. fallopiae</i> possessed bioactive metabolites with significant antimicrobial activity against diabetic wound microorganisms.</p>