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Antimicrobial activity of phenolic compounds from Chilean grape wine waste

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The grape production worldwide has been estimated in around of 60 million tons per year. About 80% of the grape produced is utilized for winemaking and in this process a grape waste are also produced that consists of around 20% of the weight. Currently, Chile is one of the main wine producers in the world; nevertheless, the wine industry produced a lot of grape waste that is a potential source of natural products that can be used for different purposes. Nowadays, near 90% of the bacterial infections of the skin and soft tissue are produced by Gram-positive bacteria, taking advantage of the large amount of grape waste and the potential of this residue, a chemical characterization of a grape waste extract and the antibacterial activity against Gram-positive bacteria was made. A large amount of phenolic compounds were found in extract methanolic and extract methanolic/water as kaempferol, derivates of cinnamic acids, gallic acid and caffeic acid determined for HPLC-DAD. Among the studied bacteria, the extract of grape waste showed around of 50% of bacterial inhibition against *Staphylococcus epidermidis* compared with the reference compound (clindamycin). This study shows that the pomace extracts count on antibacterial activity on *S. epidermidis*. Thus the extract of grape waste has potential and can supply an opportunity replace some drug.

Biography

Ricardo Ignacio Castro Cepeda has completed his Master of Science at the University of Talca, Chile. He is currently a PhD student from the University of Talca, Chile. He focuses in natural products chemistry and wine analysis. He has published several papers and has participated in different investigation projects.

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