Medical cannabis

Progress and promise

Glenn Duns

LEGISLATIVE CHANGES in Australia and around the world have facilitated access to medical cannabis. This has occurred in the context of societal shifts in attitudes towards cannabis as both a recreational and therapeutic drug. There is support and enthusiasm for the use of medical cannabis both among general practitioners (GPs),[1] and within broader society. Many GPs will have patients who have either used medicinal cannabis or are considering its use, and who have questions about its effectiveness and side effects.

A basic understanding of the physiology of the endocannabinoid system (ECS) can help clarify the rationale for prescribing cannabis, as well as the enthusiasm for further research. The ECS is composed of endocannabinoids, cannabinoid receptors and associated enzymes.[2] Two key endocannabinoids that have been identified are anandamide and 2-arachidonoylglycerol, and the two key receptors are CB1 and CB2.

The cannabis plant contains hundreds of biologically active compounds, with the most prominent and well understood phytocannabinoids being Δ^9-tetrahydrocannabinol (THC) and cannabidiol (CBD). These molecules interact with the ECS, resulting in their pharmacological effects. THC and CBD have different mechanisms of action,[3] and these differences are associated with particular therapeutic and side-effect profiles. For example, THC is associated with the psychoactive and euphoric effects of cannabis, whereas CBD is not intoxicating and has minimal side effects. As a result, low-dose CBD products have recently been down-regulated to Schedule 3 medications, but as yet no products have received Therapeutic Goods Administration approval.

The ECS is involved in a wide range of biological processes and therefore medical cannabis has the potential to be effective in the treatment of many medical conditions. The use of medical cannabis for treating the symptoms of certain conditions, such as multiple sclerosis and childhood epilepsy, is already established.[4] Medical cannabis is also used in the treatment of chronic non-cancer pain, anxiety, insomnia and palliative care.

In my personal experience, I have had patients with chronic pain, anxiety and insomnia who have benefited enormously from medical cannabis, and I suspect there are many doctors and patients with similar experiences. The problem is that currently there is not enough high-quality evidence available to make definitive conclusions about treatment effectiveness. This gap in the evidence base is being addressed through the work of several institutions in Australia. There are also many excellent resources available; for example, The Royal Australian College of General Practitioners has published a position statement on the use of medicinal cannabis products,[5] which includes a prescribing checklist.

This issue of *Australian Journal of General Practice* (*AJGP*) provides guidance about specific aspects of the use of medical cannabis and also provides information about new areas of research. The article on medical cannabis and driving by Arkell et al reviews the connection between cannabis and driving impairment, as well as the legal implications.[6] Medicinal cannabis safety and potential adverse effects are addressed in the article by Arnold.[7] There is much interest in the use of medicinal cannabis in palliative care, and this is reviewed in the article by Herbert and Hardy.[8] Finally, the potential of cannabinoids to treat behavioural problems in children and adolescents is explored in the article by Efron.[9]

The use of medical cannabis is an area of great interest for both GPs and patients and is an area of extensive ongoing research and legislative evolution. *AJGP* aims to continue to publish articles that will provide guidance on this important topic.

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