# Depression, Diabetes Mellitus, and Heart Failure: A common association

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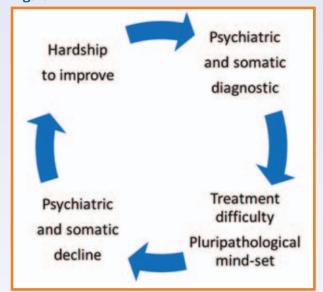
# Introduction

Both Heart Failure and DM are a serious public health problem because of the impact on health care needs. It impacts the vital conditions it creates in the lives of these patients as well as the psychological damage to take on such important changes in the lives of these patients. It is often associated with depression as a result of these difficulties, which worsens the prognosis of all the diseases presented by the patient. Depression is most prevalent in the heart failure population in 25% of cases and increases to 50% in the advanced or severe stages of heart failure. At the same time, the process to assume the Diabetes Mellitus, the associated dietary changes and increase of need for exercise are not easy to assume. As in Heart Failure, a higher incidence of depression has also been observed in patients with poorly controlled metabolic DM.

# **Methods**

We present the case of a 64-year-old man, hosted in the Psychosocial Rehabilitation service, with a sever Major Depression with psychotic symptoms, as the main diagnosis, and who, as an added somatic pathology, suffers from Diabetes Mellitus and a Dilated cardiomyopathy, with the consequent secondary heart failure. He also presents as other pathological antecedents: smoking, severe ex-enolism, pulmonary emphysema, Chronic obstructive pulmonary disease, and colonic polyposis. Our patient is moderately well controlled for his DM with an HBA1c: 6.5, without diabetic nephropathy, and his heart failure remains stable, with NYHA CF-II. Starting treatment with ECT was considered given the poor results with the antidepressant therapies initiated until then (mirtazapine, paroxetine, venlafaxine, bupropion, vortioxetine, clomipramine, lamotrigine, quetiapine, aripiprazol). An acute course of ECT was started, with sessions twice a week. 5 sessions were possible. Given their somatic pathologies, ECT has had to be suspended on several occasions, due to complications (respiratory superinfections with fever, dyspnea), and on other occasions due to the patient's refusal to continue with the treatment.

Figure 1



### Conclusion

In the patients' case, a dilated cardiomyopathy with consequent heart failure and major depression need to be considered together to be able to control them as a whole. Therefore, a closed circle can occur, in which the difficulty of somatic improvement, due to factors specific to the disease and other externalities, directly affects the psychiatric improvement, making therapy and clinical improvement difficult, both from a somatic and psychiatric point of view (figure 1). For this reason, we consider that the transversal approach of these patients with various pathologies is of vital importance, especially in those of a chronic nature such as Diabetes Mellitus and heart disease. To jointly evaluate the multiple pathologies both somatic and psychiatric, considering that the improvement of all of them will only be achieved with a comprehensive cross-cutting approach. These patients pose a significant clinical challenge.

### References

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