

I. *A Letter of Dr William Oliver, F. R. S. concerning a Calenture.*

S I R,

**I**N the month of *Aug.* 1693, I was called upon about four a Clock in the morning, to see a Sailer on board the *Albemarle* Man of War, in a violent Calenture. He was between 30 and 40 years of age, brown hair'd, pretty tall, but thin, and had not much flesh about his Bones. When I saw him first, I found him in the hands of 3 or 4 of his Comrades, who were hardly able to manage him, because of his strugglings, and constant endeavours to get from them. I observed, he very often cryed out, he would go into the green fields; his looks were as furious and wild as those of a Lyon, and every now and then he would heartily curse those that held him. The first thing I did was to examine his Pulse, I felt, 'tis true, a disorderly motion of the Blood in the Artery, and a burning fiery heat all over his habit of body, but cou'd perceive no distinction, or vibration of Pulse at all. The Surgeon of the Ship, a good experienc'd man in that way, had, before I came, attempted to bleed him, but tho' the Vein of the Arm was fairly open'd, yet cou'd he not procure an ounce of Blood from thence. Upon that I order'd him to open the frontal Vein, which succeeded no better, for that soon stopt too. This put me upon trying a third time, what effects the opening the Jugular Vein might have. From this Vein, tho' our Orifice was pretty large, we had about 2 Ounces of florid thick Blood, and then it quite stopt there too. It was, I must confess not a little surpriz'd at this; and order'd the Surgeon to unbind his Arm, and try whether he could make him bleed again at that Orifice, which I remember

member he did in a small quantity, and then stopt as before. However, having three Orifices open at that time; we drew blood sometimes from one, and sometimes the other, where we saw it run most freely. After several essays of this kind, I always observed as the Vessels emptied, he bled more freely, and at last as fast as I desired.

Now I was all along of opinion, we ought to continue his bleeding till we saw some visible alterations, and considerable abatements of his Symptoms, which happen'd in about half an hours time after I saw him, and then I felt his Pulse again; which now began to beat distinctly, but very quick. Not long after this, for he bled well enough now, I observ'd his Strugglings were not so strong, his Ravings and crying after green Fields left off, his wild Looks much abated, and not only his Pulse had recovered its due and regular Vibrations, but his heats were moderated too, and the Fury of his Spirits lay'd to that degree, that he that just now was as furious as a Lyon, was grown so tame, that one man was able easily to manage him as he pleased. In this half hour, as near as we cou'd guess, we took from him about fifty ounces of Blood from the three Orifices mention'd. By this time I thought we had enough, so I order'd him to his Hammack, as soon as we had secured the Orifices from bleeding again, and directed the Surgeon to give him an Ounce of Diacodium in a draught of Barley Water, as he went into it: Upon this he slept till about Noon, when he awaked with no other Complaint, but of weakness from his loss of Blood, and a soreness all over his Body, occasion'd, I presume, from his violent Convulsions and Endeavours to get loose.

This was the only Calenture I saw all the while I was in the Fleet for near three years, two Summers of which I serv'd in the *Mediterranean*, and this happen'd in the *Bay of Biscay*, in the Latitude of 47, in the month of *August*. They are, I hear, more frequent in warmer Climates, tho' very often undiscover'd.

The reason I imagin to be this, when they are seiz'd with this violent Heat and Disorder, which for the most part happens in the Night, they steal privately over-board into the Sea, imagining they're going into the green fields. And this I take to be the reason we see so few, tho I have heard frequently in the *Mediterranean* in Summer time, and very hot Weather, of Seamen lost in the night, which the Sailers took for granted were gone off upon such like occasions unobserved. And I remember very well, this person was actually going over-board, when one of his Brethren, who suspected his design, as he told me, caught hold of him just as he was going to leap off, call'd for help, and secur'd him by this Accident.

This Distemper, I am of opinion, is what we call a *Phrenitis*, occasioned by a more than ordinary Effervescence and heat of the Blood, which distracting and confounding, if not inflaming the Animal Spirits, the proper and immediate Ministers of the mind, is the cause of all those irregular motions, violent Explosions and Convulsions. Hence 'tis the Animal Idea's are confus'd, the Imagination deprav'd, and all the rational Functions disorder'd. From these Orgasms in the Animal Spirits, we may, I fancy, give some account of the want of Pulse too, their constant and impetuous Motions through the Fibres, not admitting any distinct Arterial Vibrations. And perhaps Phlebotomy did not succeed at first, because the Orifices contracting presently, prevented its Effusion, and probably the thickness of the Blood concurr'd not a little in this Phenomenon. His calling out for the green Fields, the true Criterion of this Disease, I take to be from the violent heat he was then in, which made him fancy green Fields and open Air to cool himself in at that time, the Ship being too warm for him under these Circumstances, for want of Air. And lastly, Calentures happen oftner by Night than by day, because our Ships are most closely shut up by Night, and are less airy than they are in the day time.