INTRODUCTION
The relationship between fictional literature and Medicine, particularly Neurology, is very wide. Several physicians embody a selective group of famous writers, including António Lobo Antunes, in Portugal, Anton Tchekhov in Russia and João Guimarães Rosa, in Brazil. In the field of Neurology, it is well known that Silas Weir Mitchell, the founder of the American Neurological Association and its first elected president, published 27 works of fiction containing neurological references. Oliver Sacks is today a living example of this tendency. In addition, there are several writers, non-physicians, with works of fiction, particularly in the field of Neurology, such as Shakespeare, Dostoyevsky, Dickens and, in Brazil, Machado de Assis. This study aimed to analyse the work of Dalton Trevisan, considered the most important Brazilian author of short stories, focusing on his description of neurological disorders.

MATERIAL AND METHODS
The authors review Dalton Trevisan’s books published from 1959 to 2012, presenting those references to neurological disorders.

RESULTS
Short Biography: Dalton J. Trevisan was born in Curitiba on 14 June 1925, where he lives until the present date. He obtained his Law Degree at the Universidade Federal do Paraná, worked as a lawyer for a short time and then followed a journalist career as a police reporter and as a film critic. He issued the magazine Joaquim in the forties, which represented a group of intellectuals, gathering works by major Brazilian writers of that time. To date he published 40 books, 39 as short stories and one single novel, entitled ‘A Polaquinha’. His first book was ‘Non-exemplary novels’ ‘Novelas nada exemplares’ which made him nationally famous. The ‘Vampire of Curitiba’ - ‘O Vampiro de Curitiba’ is among his best known books, with several editions in Brazil and worldwide. This author received several rewards over his prolific career, including the Ministério da Cultura.
literature award, the Jabuti award and more recently the Portugal Telecom literature award, this latter awarded twice. In Brazil, he received the Academia Brasileira de Letras’s Machado de Assis 2012 award. In the same year, he also received the Camões award in Portugal, considered the most important literary award in Portuguese language, aimed to reward an author for his entire life work.5,7

Dalton Trevisan and Neurology

We assessed 37 short story books, including selected short story collections and one novel. From all books analysed, more than half contain references to problems related to Internal Medicine, mainly cardiac and respiratory but also psychiatric disorders. In eight books (21.6%) we found references to neurological disorders, particularly in the area of epilepsy and cerebro-vascular disorders.

Epilepsy

Trevisan presents in some of his short stories general references to people with epilepsy, as well as epilepsy cases as such, describing deadly classical generalized tonic-clonic seizures in a patient with a possible meningoencephalitis and another patient with cognitive delay and cerebral palsy, with secondary epilepsy. In some stories, he sometimes presents vague descriptions of characters with ‘absences’ (as a possible allusion to complex partial seizures).

The story entitled ‘Where is the mad vampire from Curitiba?’ ‘Que fim levou o vampiro louco de Curitiba?’ (published in the book ‘The bird with five wings’ ‘O Pássaro de cinco asas’) includes a general reference to people with epilepsy:

“(...) * Where are the famous epileptic! – ah, all the streets were full of epileptics! – with their roaring scream, whoever has heard it never forgets, with the wounds in their bitten tongues, the small pool of water on the pavement?*”

His story ‘Little Peter’ ‘Pedrinho’ (from the book ‘Non-exemplary novels’ ‘Novelas nada exemplares’) includes a precise description of a dead child due to a probable non-treated meningoencephalitis. The child complains of headache, than fever and with no appetite, with photophobia, and was taken for medical evaluation.9

“(...) – It’s nothing – said the pharmacist – It’s the flu. With the worsening of the child’s condition, her mother went to the pharmacist for help. Mister Juca, don’t you think it may be... – What hope, lady! He carefully lifted the child’s head. – Did he moan? – No. You saw it. If it was that disease, he would shout in pain.”

Meanwhile, ‘(...) On the way back from work, the child’s father saw from the corner the neighbours standing in front of his house – why did you take so long, man from God? The woman stood there crying, her head leaned on the wall. A neighbour was rubbing the fainted child’s wrists with vinegar. The father leaned over the bed – the child’s eyes twisting, his body bent from the neck to the heel. After each seizure, the eyes closed with difficulty.”

Thirsty, the small boy snapped his lips. Moaning, he did not allow anyone to bend his head, rolling over the pillow. Suddenly, he jumped in bed. His mother lifted his head and little Peter screamed. At night, the child remained with his lost look towards the lamp” “(...) Rigid in bed, with his look fixed on the lamp”. “(...) his mother, praying, stood by the bed on her knees. Little Peter with his fixed look. She screamed: - He died… my little son died! – Don’t cry, woman. I am the father, and I am not crying.”

The story ‘Ô doce cantiga de ninar’ (from the book ‘The bird with five wings’ ‘Pássaro de cinco asas’) includes the description of a physician attending a patient, son of his neighbour, with severe mental retardation and brain paralysis, upon a tonic-clonic generalized seizure:

“(...) – Doctor, please forgive me. I don’t know whom to claim for help – and she stepped back, revealing the situation. Sitting on the chair was a horrendous creature. Bearded, he squeals, shaking furiously”. “(...) With the body of a boy and the head of an old man, grey hair, rotten teeth. Wearing a coffee and soup stained pijama, with cigarette holes. Short and thin legged, a long curved nail in a useless foot. Besides being paralyzed, retarded – at the age of eighteen he snarls two or three words: manhê, papinha, dodô. The little drooling monster lying there, the mother complains to João, pulling his sleeve, sniffing nervously. She could not send him to the hospital, the treatment was too expensive. As homeless, nobody would accept him.”

“(...) His head leaned over his chest, he looks like he is sleeping. The doctor risks one step. Sneezing red-eyed like a frog, showing his yellowish teeth; his hand on the chin, drooling – You think drooling spreads!”,

The story ‘The sacred chubby girl’ ‘A gordinha sagrada’ (published in the book ‘Roses Abyss’ ‘Abismo de Rosas’) includes the description of seizures suffered by the character herself, during a love encounter.10 “Look at the test. It was normal. We suggest to repeat a barbiturate-induced sleep EEG. In the red pouc a paper tissue, round small mirror, lipstick, tablet bottle, pencil, even a cork. – For preventing the bite, you know. The tongue” “Can it arise suddenly? – When I take medication, there is no danger. Did I tell you my fiancé wants to leave me?” “Since when? – The first at the age of thirteen. At school everyone screaming as if there was a fire. All the girls were running. In panic, I had a thing. I became purple and drooling. I only recovered when at home. – Don’t you feel any aura? – Under pills. Four years without any seizure. Now again. Any disturbance is enough. Any setback. –How did it happen? One at Emiliano Street. I fell on the pavement. Two schoolmates helped me. They called the ambulance. I woke up at the emergency room.”

“- Another one at the ball. I was dancing with my fiancé. Suddenly, I fainted.” “In the ballroom, can you imagine? The pool of water is what ashamed me.” “ – One scream that I listen even when asleep. – You feel what? – Not having anyone beside me. That will not let me fall down. Did you

* Translator’s note: this is not an official translation. In (brazilian) Portuguese language on the original text.
know that I do not beat myself anymore? – Do you still drool? – Yes. I fall asleep until the following day”.10

The story ‘The second wife’ ‘A segunda mulher’ (published in the book ‘Those damned women’ ‘Essas malditas mulheres’) there is a short description of a possible complex partial seizure.11

“He was admitted when he was a policeman? – This is a nerve problem, you know. It happened at the Nossa Senhora da Luz asylum. Twice. The second time admitted me to hospital and retired me from work. Absence seizures, said doctor Alô. I lost conscience. As an electric shock I then return”.11

Several other non-epileptic events are described in women, with description of seizures (related with stressing events) and of possible somatoform disorders, as conversion crisis (hysteria).

The story “Temptations of a poor lady” ‘Tentações de uma pobre senhora’ (in the book ‘Marital War’ ‘Guerra Conjugal’) includes an adultery description in which Mr. John, helped by the police, finds his wife, Mrs. Mary, in a hotel room with her lover. The wife presents letter drafts explaining the reasons for the adultery.12

“These were only drafts, apologized Mary, showing her broad thigh, scribbled in a moment of folly and, turning her eyes white, she suffered a seizure. The porter came to help with water and sugar. When she recovered, the poor woman drank a few sips and asked whether her husband might not be more of an offender who, by denying her tenderness, humiliated her woman’s pride”.12

Cerebro-vascular Diseases

In Dalton Trevisan’s books, references to cerebro-vascular diseases were made in two ways. First, there are references to transient ischaemic attacks and then to strokes, probably ischaemic, located in the right brain hemisphere, with neurological motor deficits.

The story ‘The second woman’ ‘A segunda mulher’ (published in the book ‘Those damned women’ ‘Essas malditas mulheres’), includes a reference to a probable transient ischaemic attack.11

“Retired from work due to health reasons? – Do not think that I have a burst vein. My head is well, in one piece. Only this year, was there a stroke threat. – Nonsense, Joe. I went to pick up the mug – and it fell over. I wanted to open the door – and the latch did not work. Then I sat down. What is this, my hand? – Glad it answered”.11

In the story entitled ‘A walk in hell’ ‘Um passeio no inferno’ (published in the book ‘The Great Deflorator’ ‘O Grande deflorador), the author describes13:

“Upon a restless sleep, he tried to roll over: the left arm was useless. He wants to stand up – the leg was forgotten. When he called for the old woman, he only managed to grunt. Oh God, Joao! On his knee and a folded hand – just like he hated. – You have half mouth. In a coma for three days and three nights – And when did you wake up? (...) Five days later his son-in-law cut his hair and shaved him. – Getting better. But please do not look. Still with half mouth. - Lucky, it did not affect the speech. In the corridor his friend is warned. – Speak of anything but stroke. As he does not know. (...) Sitting on the arm-chair. White scarf over his neck, grey striped trousers, black boots. On his shoulder the blue cape with a scarlet lining like the king of the troops. – It was just a sprain. Now I understood. Due to the bloody wind – that old woman and her habit of leaving the door open”.13

Other neurological diseases

In the work of Trevisan, there are brief references to migraines, particularly regarding the trigger factors, especially under stress situations.

In the story ‘The great deceiver’ ‘A grande fiteira’ (published in the book ‘The King of the Earth’ ‘O Rei da Terra’), there is a brief reference to the situation referred above, using the HaiKai style.14

“(...) Mary’s migraine name is John”.14

In the same way as with the headaches, the work of Trevisan includes references to patients with cognitive dysfunction and dementia. In the story ‘Five Haicais’ ‘Cinco Haicais’ (published in the book ‘In the search of the lost Curitiba’ ‘Em busca de Curitiba perdida’), Trevisan wrote16:

“At the moment of signing, the old man, proudly looking down his warped glasses: - Which is my name? Who am I, really?”15 Or again in the story ‘The name of the game’ ‘O Nome do jogo’ (published in the book ‘Those damned women’ ‘Essas malditas mulheres’):17

“At the moment of signing, the very weak old man, looking down his warped glasses: -Which is my name? Who am I really?”.14

DISCUSSION

The writer Dalton Trevisan, famous for his short stories, some of them defined as mini-stories, like a haicai, nationally and internationally recognized, has a distinct style, in which the objective unique narrative, with summarized language, is highlighted by the constant use of the ellipsis, presenting a meticulous, dense and obsessive style. There is an extreme language condensation which, added to the well-known self-isolating tendency of the writer, helped to achieve the myth of the ‘vampire of Curitiba’, which is the title of his most famous book. The writer has a dramatic sense of human condition which in fact is related to neurological medical practice. In this historical review, several neurological disorders are referred, with great prevalence, as epilepsy and cerebrovascular disease, which are described in an objective and practical way by this master of short narrative. Several cases of epilepsy are presented, describing generalized tonic-clonic seizures and possible complex partial seizures, as well as patients with non-epileptic paroxysmal events with a physiological origin, like syncope and somatoform disorder, possible conversion episodes (hysteria), presently defined as functional disorders. In addition, ischaemic stroke and even transient ischaemic attacks are presented, always including well detailed descriptions that relate well with the usual neurological anamnesis. Trevisan, a
recognized misanthropist, is a careful observer of reality details, a characteristic of the great writers. He has an acute conscience of the reality and this way the fictional world of the famous Brazilian story teller is related to several facts of daily life, particularly with the tragic-grotesque and therefore with neurological disorders, particularly epilepsy and stroke, which are references very present in his work, yet not significantly. In one of the few interviews with the writer of Curitiba, in 1969, he suggested briefly his modus operandi: “The writer is a person who cannot be trusted. A friend comes and complains of the hardest pain; I listen carefully, but what I am doing is gathering material for another story. And I know that at that moment. The bad conscience arises. I know that I am doing so and I do not want to do it but there is nothing to it. The writer is a damned human being”.16

The peculiar style of Dalton Trevisan, which shows so clearly in these descriptions of neurological disorders, may be due to several factors, including personal (personality type), together with environmental factors (family tragedies). Generally speaking, it may be said that Dalton Trevisan’s narrative is in line with narrative-based medicine (the patient’s narrative), which must be associated with current paradigm of evidence-based medicine.3

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Hélio A. G. TEIVE, Renato P. MUNHOZ, Luciano de PAOLA

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Av. Almirante Gago Coutinho, 151
1749-084 Lisboa, Portugal.
Tel: +351 218 428 215
E-mail: submissao@actamedicaportuguesa.com
www.actamedicaportuguesa.com
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