

Carlecast 12 – Autism, Part 1

Dr. David Graham: It's Carlecast #12: Autism Part 1.

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Dr. David Graham: Hello and welcome back to the Carlecast, the show where we give you doctors talking with doctors on topics of interest regarding your health. This is, of course, all original podcast material. This is not repackaged from a radio show, TV interview, or anything else. We're doing this straight out, on the Web, for your information. I am Dr. David Graham, your host and tour guide through this journey of various medical topics.

I know it's been a little while since our last show. I apologize about that. We're ready to get back onto a usual schedule of regular new shows coming out, chock full of information that I find interesting and I hope you find interesting as well.

Now certainly with our last show, we did do something a little bit different. We had a mix of interviews as we were talking about a medical education session that was held by the Carle Foundation, called Foundation Day. We're going to keep going with something a little bit different for the next couple of shows as well.

We are going to go back to the old formula of a one-on-one interview with a physician, but we've got a topic that is so interesting and so broad and probably not nearly as well-known as it should be, that it's really going to take us two separate shows to cover everything I would like to cover on this topic. And that is autism.

Certainly, autism is something that we see in movies and TV shows quite a bit. Sometimes it's little more than a plot device. For many of us, all of our actual experience regarding autism simply comes from what we see on these medical shows.

Well, at Carle Clinic, we're fortunate enough to have a physician, Dr. Charles Morton, who has spent quite a bit of time working in autism and has, really, a special practice in autism. He's been kind enough to give us not just one interview session, but actually two.

Now, Dr. Morton got his original pediatric certification in 1984, after going to Georgetown University School of Medicine. He did his pediatrics in San Francisco and he's done behavioral pediatrics. He's worked a lot in autism for now more than 20 years and has a thriving autism practice at Carle Clinic. The man is a wealth of knowledge about the subject.

In this first interview today, we are going to cover topics in terms of prevalence of the disease, if we want to call it that, how it's diagnosed, and what workups might entail. So let's get right to it with Dr. Charles Morton.

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Dr. David Graham: And I'm here this afternoon with Dr. Chuck Morton. Dr. Morton is a Carle Clinic pediatrician who has a 20-year history of working in autism, whether it is running clinics, additional training, and those sorts of things.

Dr. Morton is gracious enough to give us a couple of sessions of time to talk about this topic, which is becoming more and more well known out in the medium. I think there's a lot that we all can learn about autism, and I really appreciate Dr. Morton's time in being able to talk with us here today.

Dr. Morton, it's really great to have you here with us this afternoon. Autism is getting a lot of press these days, and there may be some right ideas about autism put out there, and maybe some wrong ideas about autism put out there. Do you see that the picture of autism that's being presented now is accurate, more accurate than it used to be, maybe not as good?

Dr. Charles Morton: I think that a lot of children who now are being diagnosed with autism would never have been considered for this diagnosis in the past. The reason for that is, I think, 10 or 15 years ago we had a very rigid picture of who had autism and who didn't, which led to people missing the majority of people who have autism. Autism is actually pretty common too, now, whereas it used to be thought of as a relatively rare disorder.

Dr. David Graham: How often do you see autism out in the general population?

Dr. Charles Morton: Well, I saw another child today I diagnosed with autism and I diagnose a new child with autism several times a week. Autism is supposed to be as common as one in 150 children. That means in our immediate community area, there are approximately 30 to 40 children with autism born every year. Unfortunately, though, we're not going to diagnose those children until a considerable amount of time has gone by. If we can diagnose the children sooner, then we can make a big difference in their future.

Dr. David Graham: How soon are you talking about in terms of diagnosing the child?

Dr. Charles Morton: It's tough to diagnose it before age one. It's much easier after age two. I think that to diagnose it around 18 to 24 months is about as early as we can. That's a great time to do it, because we can then refer the child to the appropriate kind of services. It is very common however, and I think a lot of times parents will have some issues with coming to accept their child may have a problem. They may have accepted their child has a problem, but then there are other roadblocks in the way.

Sometimes it's their own doctor. Very frequently, it's their relative who says, "Well, he's just like Uncle Harry, who's a rocket scientist." Well, maybe Uncle Harry is a rocket scientist for a particular reason, but we don't want to pass on the earlier detection of autism, because we know that'll make a big difference in that child's future.

Dr. David Graham: So, as a parent, and as myself having gone through two kids growing up, what are the things that I should have been looking for or that parents should be looking for at this point to at least maybe raise a question of "Should I have my child looked at in terms of autism?"

Dr. Charles Morton: Well, I think the first thing that should be discarded is the common notion that children with autism are not affectionate. Children with autism usually are affectionate, although sometimes it's very much on their own terms. Once you get past that roadblock, then you can start thinking about the other more common things that we run into with autism too.

Does the child look at me as readily as another child would look at me? Does the child respond to their name as quickly as another child would respond to their name? Do I have to make a lot of inroads into getting their attention?

They usually have developmental delays in multiple areas but not every single area. They frequently, about one in three children with autism have a regression. So they'll be speaking and then they'll quit speaking. The usual time for this is between one and one-and-a-half years of age. That would be a big tip-off that you may be dealing with children with autism.

They also may not play with other children very well; they sometimes get stuck on something. Most children get stuck on something — they'll get stuck on their pacifier, they'll get stuck on their blanket — that's normal. But if a child is stuck on a piece of wood or a toothbrush or some strange object, well that's a little bit unusual and it should make you wonder "Why he or she is stuck on this particular thing so much."

Dr. David Graham: So now you have some concerns as your child goes in for their general exams and their well-baby checks, and you see initially things getting better and then maybe not doing as well. To raise the question of the regression that you talked about, are most regular pediatricians attuned to the question enough that they would raise the question to you, being the parent? Or, as a parent, should you raise the question to your doctor saying, "Do we think maybe autism could be a question?"

Dr. Charles Morton: Many of the times when you go in for a well-baby check people assume from the outset that they won't find very much abnormal in this interaction. If you have a concern, you must raise that as a vigorous concern to whoever you see so that it can get proper attention. If that isn't addressed at the time of the visit, then feel free to make a follow-up appointment that specifically addresses my child not speaking or whatever the specific concern is. If you bring

it up as its number one concern at its own visit, believe me, you will get your concerns addressed.

Dr. David Graham: So then I assume as the primary pediatrician looks at it and says "Well yeah, maybe autism is something we ought to think about," they send them to come see you?

Dr. Charles Morton: Well, one of the things that are changing is the primary care doctors in our community, more and more are starting to use a screen that tries to pick up autism at an early age. I know that we're using one called the M-CHAT, and that's an early detection screen that we use during the well-baby check. It takes about three minutes for a parent to fill it out, and it takes about one minute for the nurse or the doctor to score it. We give this at the 18 and the 24-month check.

There are no screens that are perfect, but that's a pretty good one to raise questions. Once you've raised questions, then you get somewhere else, you get sent somewhere else for a further assessment. So, the pediatrician or the family practice doctor doesn't have to diagnose autism, all they have to do is help you to come to realize your child may have a problem so your child can be sent in the right direction.

Dr. David Graham: So then a child who is referred to you for "Could this be autism?" what could parents reasonably expect would happen during that visit and with testing afterwards?

Dr. Charles Morton: When I see a child I'll, of course, talk to the parents. Before they come to see me, unfortunately I require them to fill out a fair amount of paperwork. This is a pain, I understand that, but it helps me enormously in terms of doing a better evaluation of their child. When I see them I'll talk to the parents, I actually go through a very extensive history with the parents; I think most of the experts in the community do the same thing.

Autism is often diagnosed by psychiatrists, by psychologists, by neurologists, and by a developmental pediatrician like me. So you probably will have to end up in somebody's office that has seen a lot of children with autism, so they make sure that the story fits together. There are different criteria by which people come up with the diagnosis. I think most of us rely ultimately on the DSM-IV criteria for autism, but there are some other tests that we sometimes do in the process of our evaluation that helps us zero in on the diagnosis.

One of the most helpful ways to get a child diagnosed with autism is a multi-disciplinary assessment. We have the luxury here at Carle of having the child diagnosis team that does provide just that; and I personally think every child who has an autism spectrum disorder should go through that process. It's substantially more expensive than seeing a single specialist and it involves a lot of people's time and energy, but I think you get the best diagnosis and you get the

best recommendations when you've had a multi-disciplinary assessment for your child with autism.

Dr. David Graham: Now, in terms of parents being worried that there could be a lot of invasive or uncomfortable testing for the child to go through, I mean, are there biopsies, are there blood tests, are there scans?

Dr. Charles Morton: For most children who I think have autism, they're going to get chromosomes, they're going to get a fragile-X test; these are genetic standard tests. I check children for iron too, which is different than a blood count. We use a ferritin because a lot of children with attention deficits and autism have been found to be quite low. Treating that particular problem may improve their behavior or their social interaction as well. Probably it won't make a huge difference for that child but if we can find some small thing that's relatively easy to treat, I'm all for that.

Dr. David Graham: So really we're just talking about a basic blood test here.

Dr. Charles Morton: There's a blood test, and that's the worst thing that you'll go through; at least from my perspective. Now, from the parent's perspective, you know, hauling a child in here facing a rather monumental diagnosis at times is quite a bit to go through. And the child may not be too thrilled to be in here. But I have kind of a laid back approach to my patients and I find it works pretty well for the kids.

Dr. David Graham: Well, that has got to be at least more comforting to think that they're not going to be putting their child through a whole lot of uncomfortable type of things other than the time required in the office. And that helps us get to a diagnosis in the majority of cases?

Dr. Charles Morton: When the parents leave my office, in the vast majority of cases I have a diagnosis that I can give them. Not only do we give them the diagnosis but we at that point are putting together a plan by which we'll refer them to the appropriate resource, such as the 0-3 program or the early intervention program, which in this area is called Child and Family Connections.

By the way, that is a magnificent resource though, and it doesn't cost anything for an evaluation. You don't have to be referred by your doctor; you can call them up yourself. And the number to call — if you want to just have an evaluation — to find out the local number wherever you live, for the state of Illinois is 1-800-323-GROW.

Dr. David Graham: And I think that actually brings us to a nice place for us to hold off here today, because I know there's a lot we can go into in terms of different treatments, and that would probably make this interview much longer than we'd want it to be.

Dr. Charles Morton: The treatment aspect I think could last hours.

Dr. David Graham: Well, we'll try to not make it quite that long, but we will get together another time and go into some of the aspects of treatment.

Well, Dr. Morton, I really appreciate your time today, and hopefully we can take some of this information and help steer parents. If their child may need assessment or if they were concerned and scared about putting their child through it, make them feel more comfortable about that. And on the next time we talk maybe we can get people feeling more comfortable about the options and the possibilities that are out there with treatment.

Dr. Charles Morton: I would urge the parents two things: Don't be afraid to have the possibility examined. It's much better to diagnose this early, and the outcome for your child with early diagnosis will be far superior.

The other thing is, you sometimes have to go past people who have said "Your child is fine, don't pursue this." I've seen... I would say most parents, by the time they reach my office they've had to battle their way past somebody or maybe a bunch of people, and they are frequently relieved to know their child has autism. That sounds strange, but by the time they get to me they've been trying to get a diagnosis for their child, and they know that there's some help with the right diagnosis; and that's why I'm here.

Dr. David Graham: Well that's a fantastic point I think to end the day on. Dr. Morton, thank you for your time, we'll look forward to our next conversation here shortly.

Dr. Charles Morton: Thank you.

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Dr. David Graham: Well I certainly hope you found that interview as interesting as I did. You know, every time I do one of these interviews — and I know I say this every time and it's probably getting old, but I've got to repeat it again — I learn as much about the topic we're going over as you folks do. You know, medicine is so broad that no one can ever expect to know everything about every area.

I certainly went into medical school thinking how interesting and exciting all this was. And you know, in all honesty doing these podcast shows really helps me rekindle that enthusiasm for medicine. So I get as much out of this as I hope you folks do listening to it.

But let's get down to one of our old standards, and that is to say, look around other areas of medicine and health and see what else is going on. Those areas that may not be ready to come out into the public, may not be ready, as we say, for prime time, but raise some interesting ideas and interesting topics for us to think about.

The article I found to discuss here is kind of interesting — talking about exercise and memory. There was a neurologist at Columbia University Medical Center who was quoted as saying that there's been no previous research systematically examining the different regions of a part of the brain called the hippocampus and figuring out which of these areas is most directly affected by exercise.

There's been some information in mice that exercise can increase blood flow to a part of the brain called the dentate gyrus, and so this fellow decided he was going to look at this in more depth.

Now as we usually go, we will often start these things on mice because we can do that much easier and that's what he did. He looked at mice and found that with exercise they grew new brain cells in this area called the dentate gyrus. It's a part of the brain called the hippocampus, and it's really interesting because this is a part of the brain that starts to be affected in the age-related memory decline that relates — oh, God forbid — at age 30 for most of us people. Changes in the dentate gyrus start taking effect and our memory may not be as good as it used to be previous.

Now, in the past they knew that magnetic resonance imaging could be helpful to look at things, so they decided to do that again this time. And what they did is they did MRIs on people, looking at their brains before and after exercise. They took 11 healthy adults who were willing to A) do aerobic exercise, and B) get lots of MRI scans. Which if you've ever had one you know these can be kind of intimidating, sometimes they can be a little bit claustrophobic for some people, but most people make it through them OK.

But anyway, they put these healthy adults through a three-month aerobic exercise regimen, they did MRIs of the brain before and after, and they measured the fitness of each volunteer by measuring their oxygen volume before and after the training program.

And what they found is really interesting. When people exercised there was more blood flow to the dentate gyrus. The more fit a person got, the more blood flow to that area was seen on the MRI scan. Now, this isn't as direct of information as finding exactly new brain cells growing, but certainly, increased blood flow to a particular area is going to help stimulate and support cell growth in that area. So there's some good information on people that exercise can help keep your intellect as strong as it was when you were younger.

Now the next step and this hasn't been reported out yet but it's really an interesting idea, and that is the question "Is all exercise the same?" In other words, can they target a specific exercise regimen that gives you the biggest bang for your buck? And that's going to be the next step in that research. So to keep your brain moving, keep your body moving as well.

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Well that brings us to the end of another Carlecast. If this is the first time you have found our show through various podcast catchers or other websites, please go to our web page: www.carlecast.com. On there you'll be able to find all of the shows we've recorded as well as written transcripts for all of the shows. So if you want to keep something in writing on file you'll be able to do that as well. There's a link on that web page if you have questions, comments; constructive criticism certainly is always appreciated.

Our next show is going to be part two with Dr. Morton where we start talking about various treatments and interventions for autism and possible outcomes related to those interventions. To me, I think that's going to be just as interesting and as exciting as this first part was.

I've got some other interesting topics on line, including mammography, and other testing that's going to be done, possibly some future talks on research — both clinical and what's called "translational" research — and various other topics of interest. Certainly if you've got any topics of interest, we'd love to hear about them. Just click on the email button on the web page and let us know what they are.

So until next time, I am Dr. David Graham— asking you to stay healthy.

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