To this week’s character center Grand rounds, we have two speakers today, both from Yale will give us some exciting discussion of some of the work we’re doing here.

Our first speaker is Mario Strozza busco. He’s a professor of medicine, director of the liver center. He received his medical and PhD degrees in Italy and then had a number of leadership positions at the University of Milan before joining our faculty. He’s an expert on the care of
patients with liver cancer, is internationally known for his work and hepatology. Liver transplantation is a member of several scientific societies in Europe in the United States. His current research relates to the pathophysiology of biliary tract disease is repaired. Biology of liver repair, liver transplantation, liver cancer in healthcare management, and so today we’re going to hear from Mario and tell of his talk is liver cancer, clinical care and research at Yale.
So Mario, you’re up. Thank you very much, Dan, for the introduction and thanks for the Cancer Center for the Invitation Ann. And thanks a lot for this Milo. I’m really only as a spokesperson for a group of colleagues that are interested in India in liver cancer and treating liver cancer. So I’m just the messenger. So what do we do in the liver cancer program we take? We take care of patients with liver masses either benign or malignant are,
and the two most frequent. Primary liver cancer are able to sell cash. You know my also called HTC and Intraparticle Angela carcinoma and I focus my talk today mostly on ATC, which is the most important primary. Cancer of the liver. The liver is an organ which is located in the abdomen, but really here it is. The main regulator of the whole body, metabolic coma stasis, and in fact if the liver fails we actually, the patient suffered of a syndrome which is very bad.
Absolutely Poly systemic syndrome. As you can see here. And the important thing to understand is that 85% of the patient with able to sell casino. They are also cirrhotic in the liver and not only that, but if we follow a cohort of patients with viral induced liver disease either B or C for enough time, we see that the main the. When they die, most of them they died with the in a particular casting armor as shown here. So why what the about the circus number is actually only rise
worldwide and the estimate are there. There are 830,000 cases recorded every year, with the mortality that almost approached the incidents. And why is that? Well, this is the result of a number of worldwide the epidemics that are also risk factor for chronic liver disease and among them we can mention viral appetite is B&C. You see that they the infection from viral potatis is hundreds of millions of people I call is another important work by the. What is factor as it is obesity, diabetes?
And more and more, we realize that if an important risk factor is due to inequality’s an patient population that are underserved and they have difficulties in reaching and being reached by the best care, other risk factors, smoking alpha toxin and and another as well. This risk factor are distributed unequally in the world wide. For example, aflatoxin is more frequent.
00:04:42.722 --> 00:04:45.779 as it goes in in the African continent,
00:04:45.780 --> 00:04:49.070 but if we go to the US, All told,
00:04:49.070 --> 00:04:51.990 this publication shows Nash is a main factor.
00:04:51.990 --> 00:04:54.419 It is actually we have all the
00:04:54.419 --> 00:04:56.291 respect or combining here because
00:04:56.291 --> 00:04:58.186 we have Nash with alcohol,
00:04:58.190 --> 00:05:00.020 we have appetite is C.
00:05:00.020 --> 00:05:02.210 And so on. And in fact,
00:05:02.210 --> 00:05:05.710 if we look at the distribution of
00:05:05.710 --> 00:05:08.710 the incidents of ATC in the US.
00:05:08.710 --> 00:05:12.700 We see that is actually particularly
00:05:12.700 --> 00:05:19.248 hygge about 8. Per 100,000 in the.
00:05:21.820 --> 00:05:26.218 So if we look back more.
00:05:26.220 --> 00:05:27.340 In depth into it,
we see that in the US the liver

cancer incidence has increased almost

and the mortality is increased

almost two times as shown.

Also in this graph on the right, if we look at the numbers and compare the number with two big, GI killers in their digestive system, like bankers and call, and we see that in Connecticut we have a record of 480 cases per year and this is a combination between HCC an intra Patrick. Cinema also the interparticle answer carcinoma is really minority,
so we have 480 new cases and $320 unfortunately and this is a figure which is similar to another big killer like the pancreatic cancer. 730 and 520. So what? How does the molecular pathogenesis of apples for casino? We have said it.

Most of the patients have cirrhosis and in fact the main theory is that in the cirrhotic nodule there are Even so happens that brings to Korando casino man. I’m in one of these is the. Alter the.
TR T promoter that basically.

Blocks the ability of the liver cell under information to undergo senescence and among them.

There are other possible.

But the genetic event like P53, which is basically associated with aflatoxin, better cotton imitation,

But this is a scenario that is not very well understood.

All we can say for now is as there are two different classes, one name proliferation,

the other non proliferation that are different in terms of their prognosis.
and in terms of their ability to respond eventually to immunotherapy.

So I put the cell carcinoma is a very peculiar cancer because he has a dual personality. It's a cancer in a failing vital organ and it can be seen from a biological perspective. There are inflammation induced phenomenon, oncogenic viruses, literally natural general mutational landscape and this brings to a complex tumor phenotype with the witches aggressive. It is a terror generals with a high recurrence rate.
When is Sonic Liquor point of view?

We have any plastic disease and the liver disease.

The treatment strategy has to be tailored according both to the tumor stage and the function of stage liver disease, and this creates some of the peculiar things in that management of this disease. So we don’t have one single way to manage it that you have resection manage it that you have resection.

Ablation came embolization value.

Systemic therapy still has a.

At growing Bastille small role,
we have the possibility to transport the patient. The only solid organ that can be transplanted and most of these patients actually die because of liver failure and in fact one professional figure that is involved in this is the hepatologist. What, because of all this, different professionals involved in this treatment, the entry points usually are multiple and this multiple entry points in the system creates different trajectory for the patient.
Dispassion of resource is an can impact on the outcome because there is a confusion and you don’t really know what the part where the patient should follow. And this is one of the reason why it is important to have a team work. So to give an example, probably will take the whole day to this guy to figure out how to change the tires, whereas the Formula One team can do it exactly in 2.5 seconds. Which is amazing and is this love? Is this out of their coordination of care? So treatment of Apple Circus nominees, coordination of care, and this is the trajectory that the
00:10:04.881 --> 00:10:07.107 program has followed through the year.

00:10:07.110 --> 00:10:09.870 So we started as a conference and I remember this few people with me wrong.

00:10:12.390 --> 00:10:13.572 Salom Jeff Pollack.

00:10:13.572 --> 00:10:15.936 Jeff Wayne Rubber Dam part starting

00:10:15.936 --> 00:10:17.913 this little room and then he grew to a tumor board.

00:10:17.913 --> 00:10:19.423 Thanks to Tamar Daddy and then now it’s becoming a program.

00:10:19.430 --> 00:10:21.398 Thanks to Tamar Daddy and then

00:10:21.398 --> 00:10:23.310 now it’s becoming a program.

00:10:23.310 --> 00:10:25.360 And maybe it’s really it’s

00:10:25.360 --> 00:10:27.910 it’s ready for the next step.

00:10:27.910 --> 00:10:30.154 So when it became a program

00:10:30.154 --> 00:10:32.550 we designed in IDL structure,

00:10:32.550 --> 00:10:35.497 which is the patient can come into

00:10:35.497 --> 00:10:38.038 the system through a single point.
00:10:38.040 --> 00:10:40.150 Still working on that aspect,
NOTE Confidence: 0.84268975
00:10:40.150 --> 00:10:42.712 and then it’s actually discussing the
NOTE Confidence: 0.84268975
00:10:42.712 --> 00:10:45.209 tumor board where they treat him,
NOTE Confidence: 0.84268975
00:10:45.210 --> 00:10:47.590 allocation happens and is allocated
NOTE Confidence: 0.84268975
00:10:47.590 --> 00:10:49.970 to the different specialty according
NOTE Confidence: 0.84268975
00:10:50.041 --> 00:10:51.955 to the best treatment are an.
NOTE Confidence: 0.84268975
00:10:51.960 --> 00:10:54.830 After that it gets follow-up be ’cause
NOTE Confidence: 0.84268975
00:10:54.830 --> 00:10:57.988 we need to treat the risk factor.
NOTE Confidence: 0.84268975
00:10:57.990 --> 00:11:00.948 We need to mind the liver.
NOTE Confidence: 0.84268975
00:11:00.950 --> 00:11:03.740 Help us some chemo prevention protocols
NOTE Confidence: 0.84268975
00:11:03.740 --> 00:11:06.370 and mirroring this clinical operation.
NOTE Confidence: 0.84268975
00:11:06.370 --> 00:11:09.235 There is also research component
NOTE Confidence: 0.84268975
00:11:09.235 --> 00:11:12.950 which is again a team effort.
NOTE Confidence: 0.84268975
00:11:12.950 --> 00:11:16.316 So where are we? So we begin with the.
NOTE Confidence: 0.84268975
00:11:16.320 --> 00:11:19.506 This is a map of the Smiler Care center
NOTE Confidence: 0.84268975
00:11:19.506 --> 00:11:22.916 OK and this is the two main site for
liver care here at again you have in hospital and the VA off without but through the recent year there was open a site in in Bridgeville with magnetic so insight in the ambari came to stand for my shift key. James Mattis T is, you know, the westerly side and soon Alan Jaffe will go to West for now. This is in combination with with the transplant team the with the transplant team with which we have a very good long standing collaboration. Now it really takes a village to treat
this cancer and here you can see.
Not all of their colleagues that participates and I have to say it’s a real privilege to be able to work with these individuals, and they are extremely skilled. All of them are leaders in their own right are in their own field, so the discussion that we have are so enlightening and we follow a like a structure of discussion going through and analyze the reception, the transplant candidacy, the OR whether we need to use local regional treatment like ablation, regional treatment like ablation, radiation.
It's I don’t have the time to go into this, but it's every single all of this possible treatment is very complex and the decision making is a is even more complex because it depends from systemic and local factors, and in fact we really an. We basically follow the Barcelona Liver cancer treatment, which is a. Used by master Lever Societies an but it really has a lot of troubles. OK, there are changes. This is the latest version and takes into account liver function, performance status and and then
atomic location of the cancer.

But really there are lot of troubles and we cannot be so strict with the categories and for example this was written in 2019.

Now the first line treatment cannot be only confined to patient at about to die, as in this staging system, so a lot of things have changed and that made difficult by the fact that we have multiple theology at the underlying liver disease. The frequent comma abilities in fact, this is a cancer.
That picture above 65 years of age.

Multiple treatment option and 70% of them have a recurrence of the cancer in the next 20 months.

We have liver transplantation and other actors, so the only way to maintain a Structure approach this is to is to that room and board with four hours is not a way where we present strange cases is really the machine Ann and the credit for this goes to my colleague and friend to Mark Addy, who set it up and now we we discussed 13 cases each week.
Last year we even with the kovit
we discuss 520 cases and one of the busiest actually tumor Board 2 of
200 of them with new cases we have. 300 patient and follow up.
150 new cases and these actually treated in several different ways,
but this is not the venue to to go through the volumes or to their substantial.
The tumor board is also where we got ideas for research and ideas
for improvement and innovation.
This is that list of items that we discussed at the last steering committee.
For example,
not going to read all of them, but.

Generate. Recent opportunities.

Anne Anne, Anne,

Anne and also great care I I wanna

go briefly through this case.

This was a patient. Refer to doctor.

She’s key for transfer evaluation

Mike so the patient realized that

he had actually liver cancer.

And Moran had infiltrative

hepatocellular carcinoma with with

the tumour portal vein thrombosis.

So we discussed the case at the

tumor board and it was decided that

there was no other option rather than
medical treatment or offering a trial.

NOTE Confidence: 0.81663

Stacy did try to give him

NOTE Confidence: 0.81663

softening by the beginning I,

NOTE Confidence: 0.81663

but this was denied by the insurance

NOTE Confidence: 0.81663

and so it happened at Stacy

NOTE Confidence: 0.81663

adjust open atrial at the initial

NOTE Confidence: 0.81663

trial with a diesel Bev,

NOTE Confidence: 0.81663

which is now you know,

NOTE Confidence: 0.81663

the first line treatment for back

NOTE Confidence: 0.81663

in that time was actually we were

NOTE Confidence: 0.81663

very lucky that we could offer

NOTE Confidence: 0.81663

him and as you see here.

NOTE Confidence: 0.81663

In the graph of plotting

NOTE Confidence: 0.81663

the alpha fetoprotein,

NOTE Confidence: 0.81663

he had a complete response.

NOTE Confidence: 0.8041078

But in the next two years,
this patient was completely and the quality of life of this patient, which was completely altered by recurrent severe episodes of portosystemic several opathy. As you can see here from the ammonia and actually in during one of these emission it also discussion about goals of care was initiated, so we had a patient who was treated by so he was dying because I believe very bright hepatologist wanagas. But he was dying because I believe intervals with system are in,
00:16:56.540 --> 00:16:58.121 another is stalled.
NOTE Confidence: 0.8041078
00:16:58.121 --> 00:17:00.756 Slacker, which is an interventional
NOTE Confidence: 0.8041078
00:17:00.756 --> 00:17:01.810 hepatology calling,
NOTE Confidence: 0.8041078
00:17:01.810 --> 00:17:04.966 decided to embolize his plane arena.
NOTE Confidence: 0.8041078
00:17:04.970 --> 00:17:08.132 Shanta and now the patient is
NOTE Confidence: 0.8041078
00:17:08.132 --> 00:17:10.160 functional cancer free, happy.
NOTE Confidence: 0.8041078
00:17:10.160 --> 00:17:12.800 And when he refers to what
NOTE Confidence: 0.8041078
00:17:12.800 --> 00:17:15.080 happened with the insurance,
NOTE Confidence: 0.8041078
00:17:15.080 --> 00:17:17.210 he quotes wisdom churches saying pessimist
NOTE Confidence: 0.8041078
00:17:17.210 --> 00:17:19.320 sees difficulty in every opportunity,
NOTE Confidence: 0.8041078
00:17:19.320 --> 00:17:20.856 an optimist sees opportunity
NOTE Confidence: 0.8041078
00:17:20.856 --> 00:17:22.008 in every difficulty.
NOTE Confidence: 0.8041078
00:17:22.010 --> 00:17:25.026 So this is a case which we learn
NOTE Confidence: 0.8041078
00:17:25.026 --> 00:17:28.165 a lot about it an an in fact.
NOTE Confidence: 0.8041078
00:17:28.170 --> 00:17:28.954 Now particularly,
NOTE Confidence: 0.8041078
00:17:28.954 --> 00:17:29.738 you know,
one of the things that was interesting in the Gary case was that he never had a recurrence or will. I said occurrences, something that playing sour patient 6070% of them in there. In their first two years, so that prompted the opening of a try again by Stacy and D'istria will actually try to address the role of adjuvant treatment after surgery or ablation. Another trial is being brought here by David Madore. Fu actually addresses and
00:18:04.432 --> 00:18:06.104 other nuances of this,
NOTE Confidence: 0.8041078
00:18:06.110 --> 00:18:08.686 so he his aim is to understand
NOTE Confidence: 0.8041078
00:18:08.686 --> 00:18:11.750 whether there is a benefit in what
NOTE Confidence: 0.8041078
00:18:11.750 --> 00:18:13.630 we call combination treatment.
NOTE Confidence: 0.8041078
00:18:13.630 --> 00:18:16.132 So the idea to combine came
NOTE Confidence: 0.8041078
00:18:16.132 --> 00:18:17.383 embolization with the.
NOTE Confidence: 0.62811226
00:18:19.590 --> 00:18:23.126 Even on Koleji, in combination with a PKI.
NOTE Confidence: 0.62811226
00:18:23.130 --> 00:18:25.758 And another important aspect of the
NOTE Confidence: 0.62811226
00:18:25.758 --> 00:18:29.374 program is the fact that we really tried
NOTE Confidence: 0.62811226
00:18:29.374 --> 00:18:32.050 to record and measure the outcomes.
NOTE Confidence: 0.62811226
00:18:32.050 --> 00:18:34.280 Ariel’s affair with John awfully.
NOTE Confidence: 0.7676826
00:18:38.290 --> 00:18:41.237 My tarantula Shapiro at there are curating
NOTE Confidence: 0.7676826
00:18:41.237 --> 00:18:44.229 a database of 1000 patients in India
NOTE Confidence: 0.7676826
00:18:44.229 --> 00:18:47.166 and the survival code divided by BCSC
NOTE Confidence: 0.7676826
00:18:47.166 --> 00:18:51.438 states that you see, here are our own.
NOTE Confidence: 0.7676826
00:18:51.438 --> 00:18:54.898 Outcomes so we can really.
00:18:54.900 --> 00:18:57.138 Make the termination letter based on.

00:18:57.140 --> 00:18:58.985 Now our environment in expertise

00:18:58.985 --> 00:19:01.230 and is simple example that the

00:19:01.230 --> 00:19:03.252 outcome is outstanding up to more

00:19:03.252 --> 00:19:05.566 than three years for this campaign

00:19:05.566 --> 00:19:07.210 patient with initial cancer,

00:19:07.210 --> 00:19:09.891 things are changing after this an and

00:19:09.891 --> 00:19:12.886 there’s a lot to be discussed in among

00:19:12.886 --> 00:19:16.159 these patients and I I don’t have it here,

00:19:16.160 --> 00:19:18.398 but if anybody has a doubt

00:19:18.398 --> 00:19:19.144 about transplantation,

00:19:19.150 --> 00:19:22.444 I can tell you that the code was transfer

00:19:22.444 --> 00:19:25.448 stations like this so outstanding long term.

00:19:25.450 --> 00:19:28.530 Result for the few patient again get it,

00:19:28.530 --> 00:19:30.460 but this is a very,
very important aspect of what we do
an it’s going to be so complex
that in fact Julius with Jim Duncan
Manderly and John actually very much
involved in trying to understand
the use that we can have artificial
intelligence in the diagonal.
This characterization treatment of this
Council and we expect that this would
be a great aid to our decision making
and also discovery of new approaches.
So what the liver cancer program
doesn’t have a formalized?
Visas program but is actually
the assembly of of several
different interested people.
What have we done to. 

Put together these people so the first thing that we have been doing with Julius De Mar is these liver cancer talks their monthly in the late afternoon on Thursday. Each of them with two or three percent Asia and this has to be ongoing. Research are now published work. It covers all the aspects, clinical, translation and healthcare and and this approach Spark collaboration. There were paper grant application and also a big step. Forward was at last October when again
with the help of the Miami Justice Ann,
and thanks to the help of Gary Honeycutt’s
and his team in the Cancer Center,
we put forward the first liver cancer
Super Summit which is called pre
Where was Virtu are,
but the mission was to address the
Uncle logic challenges or liver cancer
to the collaboration amount of abide.
Spectrum will be a faculty.
And I’m gonna really run through
some of this visa suspect and what
in what I call the Commonwealth to
liver cancer is at yeah OK because
it’s not again formalized structure,
but is the gathering of interested people coming from the medical school, the School of Public Health? the VA system involving departments like surgery, internal medicine, the Cancer Center, the year, liver cancer, the Department of Pathology and so on and so forth. But all these people actually. In a 2019-2020 publish it 72 papers, an 38 of them original article 7R position paper 14 reviews and 14 of them are actually publishing in journals with an impact factor around or above 20,
which I think is pretty remarkable.

So just a very quickly glancing through it. The number of our faculties are actually involved.

In studying the different risk factors that I mentioned before, so we have outstanding work performing virally theology, interaction with aging, the HIV. We have food program that addresses the obesity, diabetes and affolder alcoholic liver diseases in other regions branch which is growing an Ann and also health care disparities.
An for example.

Razor, osean and other faculties are addressing.

Some of the Differences that we see even in connecticu.

So for example, as you can see here.

The incidence of HCC is clearly higher in this panic and black population and hopefully will will try to nail down what the causes are.

So outstanding results in outcome research, mostly addressing the role of surveillance and all of.

Antiviral treatment and the growing group of faculties are
also interested in concert cost,
NOTE Confidence: 0.8397243

effectiveness and care delivery.
NOTE Confidence: 0.8397243

We do a lot of things,
NOTE Confidence: 0.8397243

but we don’t really know their value
NOTE Confidence: 0.8397243

so this is another growing area.
NOTE Confidence: 0.8397243

Translation studies that also growing and
NOTE Confidence: 0.8397243

just to mention several faculties in Basic,
NOTE Confidence: 0.8397243

more basic studies are interested
NOTE Confidence: 0.8397243

in the transition between Nashville,
NOTE Confidence: 0.8397243

roses and and cancer and in human
NOTE Confidence: 0.8397243

Hansa ran and a lot of people
NOTE Confidence: 0.8397243

is actually interesting in the.
NOTE Confidence: 0.8397243

Role of the tumor micro environment.
NOTE Confidence: 0.8397243

Which this is, I think,
NOTE Confidence: 0.8397243

is very interesting.
This is staining for Alpha, SMA, identifying fiber, cancer, associated fibroblasts in cholangiocarcinoma and in hepatoma you see two very different. Pathology Ann and these are correlated to two very different aggressiveness. Also the tumor let me very briefly mention some of our work in the macro environment or the calendar carcinoma showing the central role of calf or the Cancer Society fiberglassed in determining several of the aspects of the two Moran now our Co other.
colleagues are addressing this using single cell transcriptomics. This is also an interest of our colleagues in radiology. They’re trying to use the tools of radiology to generate reliable imaging biomarkers for immunotherapy. This is, I think, it’s granted or proposed for the NIH by David Matter of MGM Duncan. Interest on the metabolic aspect is also followed by Michael Nathanson. Followed by Michael Nathanson, lab, and here is work from Emma tells where I’m like nothing. So I’m looking at the IP3 receptor and mitochondrial functionality in 80C and CCA,
and they’re all in the chronic affect like existence of up doses or generating up talking factor of this was published very well last year and and finally mentioning. Tell you who, just join and the chair of pathology is, you know, a very well renowned liver cancer researcher and is doing several things. Among this he explaining to detect circulating metallated DNA as an early diagnosis. Wait, you see, and we’re really looking forward very much to this study is an an also.
He is trying to use Kartiana Glypican 3 as a target. Hopefully not that big of a TC and I'm gonna finish now because the time is over. But you know this is just an example of the richness of the research that we have. And really this is and I have to thank all the department that are involved in this enterprise and. You know each of these department. There are some hepatologist hiding there and this is what will I call your liver, there and this is what is a very old tradition. Here is going to celebrate
the Diamond Jubilee.

Next year and I thank you for your attention.

Thank you very much, Mario.

Very interesting talk. Are there any questions from the audience?

So recently drugs have been developed that will cure hepatitis C virus.

People are being treated by these drugs. And what’s the effect on liver cancer?

tell the the strategy would be worldwide application of of HPV and therefore I would say that a growing
amount of patients she is being treated should be treated that has had like a slowing down during the COVID crisis but should resume full time.

The question of the effect on liver cancer is a very good question because there has been a great controversy because a lot of patients after eradication of the virus, have the path surprised that delivered Carson happens. Anyway, this is happening in patients that were treated already with significant fibers in their liver. And it was initially proposed that actually the allocation of
the virus would get rid of some kind of beneficial information, but further studies have shown that actually the risk is decreased, but it’s not zero. So why is not zero is something that we need to understand. My personal opinion is that we are simply eliminating one of the many risk factors. You know the regular guy is a little overweight, a guy that didn’t know to have a little overweight, has smoked. Is drinking, you know, not drunk but enjoying the wine.
It just doesn’t know it an an therefore yeah,

will you ever you have four risk

This is why this is a internal medicine.

This is right because you really

have to address all the risk

factor in every single patient.

Otherwise,

you may fail like like the

eradication of appetite is C shows

in certain patients and so the

basic clinical recommendation is

that the patient that you were ever

advocated while he was erotica still

needs to undergo the six months.

Screening and surveillance for ACC.
00:29:40.810 --> 00:29:42.180 Are there other other questions?
00:29:48.580 --> 00:29:52.114 OK, with that I I do see the vineyard
00:29:52.114 --> 00:29:54.480 behind your folder there in moderation.
00:29:55.750 --> 00:29:57.360 Yeah moderation, OK thank you.
00:29:57.360 --> 00:29:58.646 Thank you very much.
00:30:01.300 --> 00:30:03.675 So our next speaker today
00:30:03.675 --> 00:30:05.575 is Jonathan Levinthal.
00:30:05.580 --> 00:30:08.040 Who is, I'm sorry, just losted.
00:30:08.040 --> 00:30:13.000 My CHEAT SHEET here.
00:30:13.000 --> 00:30:14.950 So Jonathan is assistant professor
00:30:14.950 --> 00:30:17.333 of Dermatology and the director of
00:30:17.333 --> 00:30:19.158 the Yale Uncle Dermatology Clinic.
00:30:19.160 --> 00:30:22.240 He received his MD degree from New York
00:30:22.240 --> 00:30:24.940 University and is residency here at Yale.
He specializes in caring for patients with skin cancer, beginning with skin screening programs to detect cancers and sun damage and optimize prevention and therapy. The clinic serves dermatologic needs of cancer patients dealing with a variety of skin issues, including skin changes due to chemo therapies, infections, and other changes due to radiation. Cancer involvement in the scan, radiation, dermatitis, and other changes due to radiation, so we’ll hear that today. So Jonathan I’m looking forward hearing you talk. Thank you.
Thank you so much and it’s a real pleasure to be here today.

So today I’m going to talk about dermatologic conditions in cancer patients, and I’m going to provide updates from the ankle dermatology program.

So here is a list of my disclosures, mostly from serving on advisory councils with fellow Aqua dermatologist throughout the country looking at skin toxicities as well as some clinical trial research funding.

So the objectives of the talks I wanted to start by introducing you to the Aqua dermatology program.
Then I wanted to discuss the importance of cutaneous toxicities and how they can impact patients quality of life as well as their cancer therapies. When severe, I wanted to highlight some of the most common toxicities that I see from select targeted and immune checkpoint inhibitors as well as traditional chemotherapy and discuss the role that aren’t with their mythology.
Shortly after she graduated residency and then I had a great opportunity when she got recruited to Northwestern as a chief resident to start seeing patients in the clinic for which I’ve led the clinic ever since. And we’ve really seen a tremendous outgrow of support from so many colleagues in Metanx terjung Radon, an anthology, and the clinic has really grown dramatically over the years. It’s a very robust, busy clinic. Some days we see up to 50 patients. And I just have a great team of.
00:32:14.568 --> 00:32:16.511 nurses residents as well as research
NOTE Confidence: 0.82274705
00:32:16.511 --> 00:32:18.982 fellows and and support from the Yale
NOTE Confidence: 0.82274705
00:32:18.982 --> 00:32:20.906 Center for Clinical Investigation.
NOTE Confidence: 0.82274705
00:32:20.910 --> 00:32:22.860 So the field of supportive Uncle
NOTE Confidence: 0.82274705
00:32:22.860 --> 00:32:24.160 Dermatology really blossomed in
NOTE Confidence: 0.82274705
00:32:24.213 --> 00:32:26.306 the 1990s with the advent of many
NOTE Confidence: 0.82274705
00:32:26.306 --> 00:32:27.820 different targeted kinase inhibitors,
NOTE Confidence: 0.82274705
00:32:27.820 --> 00:32:29.704 which skin toxicities were so common
NOTE Confidence: 0.82274705
00:32:29.704 --> 00:32:31.694 in almost the majority of patients
NOTE Confidence: 0.82274705
00:32:31.694 --> 00:32:33.394 and it really encompasses many
NOTE Confidence: 0.82274705
00:32:33.394 --> 00:32:35.060 different things that we service,
NOTE Confidence: 0.82274705
00:32:35.060 --> 00:32:36.860 so there’s definitely all the toxicities
NOTE Confidence: 0.82274705
00:32:36.860 --> 00:32:39.330 that we see from the systemic therapies,
NOTE Confidence: 0.82274705
00:32:39.330 --> 00:32:39.996 radiation therapies,
NOTE Confidence: 0.82274705
00:32:39.996 --> 00:32:41.994 graft versus host disease as well
NOTE Confidence: 0.82274705
00:32:41.994 --> 00:32:43.280 as complications from cancer.
Going to the skin with metastases, but there's really a lot of other indirect complications that we treat in clinic and that includes paranoia. Plastic disease, infectious complications, especially in patients who are immuno suppressed as well as being part of the survivorship program. For many patients who have survived cancer now, an increased risk for developing cutaneous carcinogenesis and then also part of the umbrella is that the Melanoma program I'm part of. It falls under the umbrella of
Uncle Dermatology and so a lot of what I do is also high risk in cancer screening to diagnose and treat many different types of skin cancers and also collaborate with the cancer genetics program to obtain tissue for genetics. So wanted to start by discussing the cutaneous toxicities are not just cosmetic. These are really important issues that impact patients quality of life and there’s been many studies over the years looking at validated quality of life surveys. It’s just so common for these
toxicities to impact in both physical as well as emotional domains and so one interesting concept is that women seem to be affected greater than men in terms of their quality of life and it’s probably because of the types of regiments they did receive for breast and other gynecological cancers which frequently impact the here in the nails, and so this can affect women’s self image, cultural identity, sexuality as well as mental health, and a loss of control over their body.
The hallmark examples

Chemotherapy induced alopecia, which we see from the cytotoxic agents, in particular an homework study, showed that almost 60% of women with breast cancer preparing for chemo considered this to be the worst possible associated side effect and almost 10% even considered declining treatment in fear of it. So these are real, very real and important issues, and there’s been so many other studies looking at the acne acne reform, ranch hand, foot rashes, nail changes in mucus, itis,
all of which I’m going to discuss in which can impact quality of life. So the study on the left kind of highlights an important concept that it’s not just those main toxicities that can impact patients quality of life. In this study of targeted agents in breast and colorectal cancers, you’ll see that things like itching, dryness of the skin, easy bruise ability, pigmentary changes, they can all be associated with poor quality of life and the study on the right looked at different types of chemotherapy and...
how they impact quality of life.
And not surprisingly.
A lot of the more novel, targeted therapies, especially the EGFR inhibitors,
were associated with an increased number of skin toxicities, but also those which impact quality of life greater than some of the traditional chemotherapeutic agents. Unfortunately, there’s mounting data showing that early dermatologic intervention can really make a difference, and so Uncle dermatology programs have been showing up at most of...
the premier cancer centers in

the States and abroad,

and one study from MSK show that with

outpatient Uncle dermatologic involvement,

patients on immunotherapy were less likely to have interrupted treatment

5% versus 30% to those managed

without dermatologic intervention.

In a recent study by the Harvard Group similarly showed.

The inpatient konsult can also decrease the chance of patients receiving systemic immune suppression and immune therapy discontinuation.

Now,
we haven’t performed a comparative study.

We did perform a very large study recently that was published of over 100 immunotherapy.

Rash is 1/4 of which presented to my clinic, often with disruption of immunotherapy.

But with early dermatologic intervention, over 90% of these patients were able to remain on their treatment, so I think these numbers are compelling.

So wanted to start by focusing on some of the toxicities that I see from targeted therapy. I mean there’s so many different types of agents to discuss,
00:36:31.686 --> 00:36:33.580 review some of the main ones.

00:36:33.596 --> 00:36:37.922 In the interest of time so the EGFR inhibitors are a class that are commonly associated with cutaneous toxicities.

00:36:40.004 --> 00:36:41.664 Not surprisingly, as the epidermal growth factor receptor is expressed in the skin, hair and nails, and really important for homeostasis and some of the monoclonal antibodies likes to talk mad panitumumab as well as the 1st and 2nd generation drugs.

00:36:43.280 --> 00:36:45.314 Presents with cutaneous toxicities in the majority of cases.

00:36:49.184 --> 00:36:51.115 Fortunately, the third generation...
drugs like OC murdered him for a lung cancer patients. They don’t seem to get the rest, probably less than 30%, and so the most common toxicity that we see is the papulopustular for the acne or form rash, and this usually manifests on patients face, scalp, chest and back. Although it could be widespread and one common misconception is that it’s just a sterile technique. Reform drug eruption, which is true. However, I find a large percentage of these patients.
Especially when they get to higher grades often have coinfection with staff. Both M RSA an MSA, so that’s a good therapeutic Pearl to obtain wound cultures and hear examples of the Packers and pustules. Note all this year is crusting. It was all in petition eyes with staff. Oreius is a more typical scenario in one of the more robust severe toxicities that might require more aggressive treatment, which I’ll discuss. We see lots of nail infections paronychium and because of the
piercing of the nail plate into the hyponychium patients can get this friable granulation tissue known as pyogenic granulomas. These can be exquisitely tender and painful and definitely impacts patients quality of lights. It’s not uncommon to see her growth abnormalities, including elongated eyelashes. Some patients have a hard time trimming their eyelashes, which are curving inward and irritating their eyes, so they’ll just see me analysis with cutting their
00:38:13.373 --> 00:38:15.893 eyelashes we see lots of dryness and
NOTE Confidence: 0.8393097
00:38:15.893 --> 00:38:17.750 painful cracks and fissures too.
NOTE Confidence: 0.8393097
00:38:17.750 --> 00:38:19.330 There is an example of,
NOTE Confidence: 0.8393097
00:38:19.330 --> 00:38:21.058 you know a patient who presented
NOTE Confidence: 0.8393097
00:38:21.058 --> 00:38:23.288 with a neck near former option which
NOTE Confidence: 0.8393097
00:38:23.288 --> 00:38:25.322 was in petition eyes with staff.
NOTE Confidence: 0.8393097
00:38:25.330 --> 00:38:27.226 She responded quite well to Doxie,
NOTE Confidence: 0.8393097
00:38:27.230 --> 00:38:28.494 cyclin topical steroid ointments,
NOTE Confidence: 0.8393097
00:38:28.494 --> 00:38:29.126 antibiotic ointments.
NOTE Confidence: 0.8393097
00:38:29.130 --> 00:38:31.069 And I’m a big fan of antiseptic
NOTE Confidence: 0.8393097
00:38:31.069 --> 00:38:32.725 soaks like aluminum acetate removed
NOTE Confidence: 0.8393097
00:38:32.725 --> 00:38:33.868 a serious crusting.
NOTE Confidence: 0.8393097
00:38:33.870 --> 00:38:35.760 Here’s another example of a patient.
NOTE Confidence: 0.8393097
00:38:35.760 --> 00:38:37.380 Also recently from the Lung Cancer
NOTE Confidence: 0.8393097
00:38:37.380 --> 00:38:39.441 Group who also had quite a severe
NOTE Confidence: 0.8393097
00:38:39.441 --> 00:38:40.991 acne deformed mesh occasionally in
NOTE Confidence: 0.8393097
00:38:40.991 --> 00:38:42.756 very severe circumstances there can
NOTE Confidence: 0.8393097
00:38:42.756 --> 00:38:44.928 actually be associated alopecia as well.
NOTE Confidence: 0.8393097
00:38:44.930 --> 00:38:46.505 She responded very well to
NOTE Confidence: 0.8393097
00:38:46.505 --> 00:38:47.135 dermatologic intervention.
NOTE Confidence: 0.8393097
00:38:47.140 --> 00:38:48.840 I wanted to highlight that.
NOTE Confidence: 0.8393097
00:38:48.840 --> 00:38:50.440 While the acne reformers typically
NOTE Confidence: 0.8393097
00:38:50.440 --> 00:38:52.040 presents during the first few
NOTE Confidence: 0.8393097
00:38:52.098 --> 00:38:53.891 weeks on the head, chest and back,
NOTE Confidence: 0.8393097
00:38:53.891 --> 00:38:55.970 we have seen uncommon presentations as well,
NOTE Confidence: 0.8393097
00:38:55.970 --> 00:38:57.740 which are described in the literature
NOTE Confidence: 0.8393097
00:38:57.740 --> 00:38:59.530 and those are prepared drug eruptions
NOTE Confidence: 0.8393097
00:38:59.530 --> 00:39:01.210 which likely fall into the category
NOTE Confidence: 0.8393097
00:39:01.210 --> 00:39:03.098 of the late acne reform toxicity.
NOTE Confidence: 0.8393097
00:39:03.100 --> 00:39:04.580 In these cases usually present
NOTE Confidence: 0.8393097
00:39:04.580 --> 00:39:05.764 many months into treatment,
and they often present on the lower extremities in the buttocks, and as you can see with these perperek looking lesions, and they’re also frequently infected with staff on Moon culture. Here’s an example of a patient with head and neck cancer who responded to dermatologic intervention. And here’s an example of a patient who has pretty typical pyogenic granuloma with Paronychium, who responded to the topical beta blocker timolol gel. Many of these cases are non responsive.
to conservative approaches and sometimes procedural intervention may be required, like using silver nitrate to court arise these granulomas or even nail avulsion for the really recalcitrant cases will do. So there’s many hot topics around EGFR inhibitors one over the years has been looking at preemptive versus reactive therapy and there’s various phase two trials which have shown that doc see cycling Minocycline with topical steroids and moisturizers can actually reduce the severity of the rash. The overall incidence is probably not affected and I think the approach towards the rest differs depending on the program.
Here they’ve been looking at lots of new novel approaches for treating the rash, none of which are really gained widespread use. Some of the data is very mixed with these drugs and so we definitely need New approaches and then I just wanted to briefly mention that there’s a few clinical trials which we’re doing here. Studying the rash one is currently recruiting and I really appreciate my awesome collaborators in the head and neck and thoracic group which are helping to recruit patients. And that’s to better understand the
microbiome of the populations or option

and see how changes in the microflora

can be associated with the severity of

the rash and response to rash treatment.

And then there’s a company that we’re

working with that’s developing a

novel probiotic with staff epidermal

disappointment to look to see if

this is going to reduce secondary

infections with staff wareus,

which are commonly associated

with severe rashes.

And so this is in development

hoping to do this trial next year.

So shifting gears,

I wanted to briefly discuss
other targeted agents, which we see a lot of toxicities from in the breast group.

They heard two inhibitors as well as American hitters used for various cancers can actually share some of the properties of the EGFR inhibitor. Reactions will often see folliculitis, eruptions and acne or form rashes. However, they usually less severe and less frequent.

I wanted to talk about another very important toxicity which comes to clinic and that’s the hand foot skin reaction.
So these usually develop from the anti angiogenesis agents, some of which we just heard about which are used in the paddle cellular carcinoma such as the anti veg F agents. And here's a list of the FDA approved ones and so this seems to be one of those toxicities which just so frequently impacts patients quality of life. They have a hard time being able to work to do their daily routine. It very often impacts their activities of daily living. Patients usually present early on. We just kind of thickening or hyper keratosis of the palms and soles,
but then over time they get these very painful. Callous is, sometimes they are inflamed and then in the severe cases we even see blisters develop as well. This rash can be associated with very painful dysaesthesia with sometimes will use gabapentinoids like pre will use gabapentinoids like pre gabelein or gabapentin to help assist with at this stage as well. These drugs also are associated with genital eruptions as well as splinter hemorrhages on the nails. So we don’t really have great treatments
for the hand foot skin reaction right now.

Unfortunately, many patients don’t respond to moisturizers and keratolytic, or topical steroid ointments and so dose reduction is often needed.

So we’re doing a study looking at a novel topical nitroglycerin ointment to treat grade two or grade three hand foot skin rash and the first phase is going to be comparing it to vehicle and then the second phase.

Comparing pyren lower percentages and so if you have any patients who present with hand foot skin.

On these approved drugs on the left who have great to her Grade 3 and
really most patients eventually get to grade 2 because it’s almost always interfering with her activities. Please I’ll refer them to our study. We definitely need to do better in managing this toxicity. In interest of time, I’m just gonna highlight that we could spend all day talking about the different targeted agents in the toxicities I see. Here are some examples just to illustrate that really many different classes can do it.
CLL often get perperek eruptions, folliculitis patients with breast cancer on PR, 3 kinase inhibitors, and get really terrible. Morbilliform exanthems some requiring the use of Prednisone so wanted to turn to immune checkpoint inhibitors. Because I think you pennis toxicities are really important. To discuss with this class of cancer cancer therapy. And so all great rash, plus parictis it kind of tally. It all can occur in up to 50% of patients on checkpoint inhibitors at one point in time during their treatment.
This is especially true of patients who are on combination CTL, a foreign PD one therapy and the way I think about the toxicities from the checkpoint inhibitors is categorized them into those that are the most frequent that we see which are the morbilliform rashes, the lichenoid rash, which I’ll discuss a bit more about the exame and the parictis as well as psoriasis. And then there’s the whole category of autoimmune disorders which occur as immune related adverse events such as diddle I go and bullous pemphigoid.
which I'll discuss more about as well. Fortunately, the severe rashes, but they're not. They're not common, and then there's kind of the miscellaneous category of those that are granulomatis like sarcoid for those involving the panniculus or the fassia. So this is actually one of the largest studies out there. Looking at the different branches from in therapy that we published a couple of years ago and it was a retrospective retrospective study
of over 100 rashes that we saw

in the ankle during clinic and we

found is that they really have many

different clinical and histopathologic

morphologies here and a lot of them

resembled idiopathic dermatosis

that we treat in dermatology.

For patients who are not

on checkpoint inhibitors.

If you take a look at the yellow box I

highlighted kind of the top five and

what’s interesting about this is that

a lot of these common rashes actually

develop many months into therapy.

The most common one can be sometimes
six months into treatment,

and I think that’s important because

patients don’t always realize or

put together that their new rashes

because of their immune therapy,

and in some of the oncologist who are

less familiar with these toxicities,

also may not.

And so I think that’s important to

keep in mind that you can definitely

get late toxicities to write.

This is a very prominent feature.

In most of these containers,

toxicities fortunately were able

to manage these patients in the

vast majority of time,
topically by 20% of patients required Prednisone because of the severity.

25% had disruption of immune therapy at some point, sometimes before they saw me in clinic, or sometimes because the rash progressed. The vast majority can remain on immune therapy. It was just the cases of Stevens Johnson, a really bad bullous pemphigoid where immune therapy was discontinued and another important concept here is for the rashes. That do recur after Prednisone or that persist.
Targeting the dermatosis in a more efficient way is probably going to be the future of how these rashes are treated and so we’ve had a great deal of success using things like asset reading for the psoriasis or lichenoid rash Om Alisme after methotrexate for the Bulls tend to glide and the TNF inhibitors for Stevens Johnson, which is how we treat it typically. More recently for the cases that are not associated with checkpoint, I wanted to take a moment to discuss the lichenoid dermatitis.
NOTE Confidence: 0.8337146
00:46:41.405 --> 00:46:43.509 is we throw around the term lichenoid
NOTE Confidence: 0.8337146
00:46:43.509 --> 00:46:45.195 alot in dermatology and I’m not
NOTE Confidence: 0.8337146
00:46:45.195 --> 00:46:47.172 sure if the if our colleagues in
NOTE Confidence: 0.8337146
00:46:47.172 --> 00:46:48.792 meddock or familiar with it and
NOTE Confidence: 0.8337146
00:46:48.792 --> 00:46:50.888 so like in what looks like like in
NOTE Confidence: 0.8337146
00:46:50.888 --> 00:46:52.665 which an Organism that grows on
NOTE Confidence: 0.8337146
00:46:52.665 --> 00:46:54.782 trees kind of scaly and crusty looks
NOTE Confidence: 0.8337146
00:46:54.782 --> 00:46:56.564 kind of like the rash does.
NOTE Confidence: 0.8337146
00:46:56.570 --> 00:46:58.232 And then there’s the histologic term
NOTE Confidence: 0.8337146
00:46:58.232 --> 00:46:59.979 of lichenoid dermatitis which is an
NOTE Confidence: 0.8337146
00:46:59.979 --> 00:47:01.449 interface dermatitis with the bandlike
NOTE Confidence: 0.8337146
00:47:01.449 --> 00:47:02.590 infiltrate of lymphocytes ANAN.
NOTE Confidence: 0.8337146
00:47:02.590 --> 00:47:04.708 This is the most common histopathologic
NOTE Confidence: 0.8337146
00:47:04.708 --> 00:47:06.899 finding that we see in the skin.
NOTE Confidence: 0.8337146
00:47:06.900 --> 00:47:08.986 And so the lichenoid rash can occur
NOTE Confidence: 0.8337146

82
in up to a third quarter to 1/3 of patients on PD one and PD Wagon one agents.

And this is kind of a more severe example highlighting the pink violaceous scaly patches and plaques.

Here’s a patient who responded to Acitretin were very persistent Palmer planter involvement and he did not do as well with topical steroids or even a short course of Prednisone.

I also wanted to highlight that this lichenoid rash can involve the mucosa, and when that occurs, it can really be quite severe with ulcerations on the genitals as well as the oral mucosa.
Anan this this this clearly is very painful and we were very low threshold for Prednisone in these cases. Sometimes we try things like hydroxychloroquine in those that persist. So in addition to the lichenoid rash from checkpoint inhibitors, we can also see eczematous presentations. And then there’s patients that just have terrible parictis even without an associated rash. So here’s a typical scenario of a patient with psoriasis, then goes on checkpoint
inhibitor therapy and flares,
NOTE Confidence: 0.79664147
she responded very well to phototherapy,
NOTE Confidence: 0.79664147
which is a really nice non
NOTE Confidence: 0.79664147
systemic option for these patients.
NOTE Confidence: 0.79664147
Here’s an example of widespread eczema,
NOTE Confidence: 0.79664147
and here’s a patient that I share with
NOTE Confidence: 0.79664147
Doctor Goldberg who just developed just
NOTE Confidence: 0.79664147
severe itch and she comes to clinic,
NOTE Confidence: 0.79664147
covered in bandages and
NOTE Confidence: 0.79664147
explorations and she eventually.
NOTE Confidence: 0.79664147
Did somewhat better with pre
NOTE Confidence: 0.79664147
gabelein and phototherapy,
NOTE Confidence: 0.79664147
so just highlighting that the different
NOTE Confidence: 0.79664147
the spectrum of these papulosquamous
NOTE Confidence: 0.79664147
rash as we call them from dermatology.
NOTE Confidence: 0.79664147
So both paperboy is one of those
rashes which is not common, but it’s a very important one because it has a great deal of associated morbidity with it and so for those who aren’t familiar with it, it’s an autoimmune blistering disease with deposition of IG G and compliment at the dermal epidermal junction is seen here in my patients tissue sample and patients also make autoantibodies against BP 180, so we conducted a study a few years ago at our uncle during clinic and we found that about 1% of the patients on checkpoint inhibitors
with PD one or PD wagon one.

Based on our pharmacy develop this rash so it’s not common,

but but it definitely can be quite extensive and the latency is also usually four to six months.

Clinically, patients will often present with just worsening queritis even before the onset of rash.

Then they get these urticaria lesions with tense vesicles and bullae, which can become eroded, and you can also get mucosal involvement as well.

Think about the bullous pemphigoid.
rash is unlike a lot of the more common exanthems and lichenoid rash. These typically require Prednisone due to the severity of the presentation. We've also had cases which have persisted even after immunotherapy has been stopped, and even after a Prednisone taper likely do too. I'm just immune activation and so for those cases things like Rituxan, MAB formalism, Maverick dupilumab which are biologics, I'll discuss later might be very helpful.
And the one question about that comes up a lot is when to worry about a typical macular papular example, when should you worry about progression of Stevens, Johnson, and so? My advice with these cases is obviously, you can grade it based on the body surface area, but when the rash is pink and pure Riddick. It's very reassuring when the rash starts to become this more dusky color. That's when you really have to worry about a progression to a more severe cutaneous reaction, especially if there is any coastal
involvement or blisters or any systemic signs or symptoms really have a low threshold for Prednisone and watching carefully, we’ve definitely seen these very atypical scenarios where an example just progressed and slowly over the course of several weeks progressed to a Stevens Johnson type of scenario. And that’s been that’s been published with checkpoint inhibitors, which is actually very different than classical Stevens. Johnson would just takes off. At a very rapid tempo nears examples of examples that we’ve seen,
as well as Stevens Johnson from Hippie Niveau. An I think the future direction for it for treating these cutaneous toxicities is looking at a more efficient way to shut them down. Basically treating the dermatosis in the most targeted approach. There’s definitely a good amount of data suggesting that the use of systemic steroids is, in general, fine, inappropriate, and it has not been shown to impair tumor response when treating cutaneous toxicities, but for those cases that
NOTE Confidence: 0.8119258
00:51:27.110 --> 00:51:28.064 are just recalcitrant,
NOTE Confidence: 0.8119258
00:51:28.070 --> 00:51:29.888 I think we’re going to find
NOTE Confidence: 0.8119258
00:51:29.888 --> 00:51:32.188 the use of anti aisle 413 drugs
NOTE Confidence: 0.8119258
00:51:32.188 --> 00:51:34.554 like the pillow mab or anti Ige.
NOTE Confidence: 0.8119258
00:51:34.560 --> 00:51:36.215 He antibodies like oh Melissa
NOTE Confidence: 0.8119258
00:51:36.215 --> 00:51:37.208 Matthews more frequently.
NOTE Confidence: 0.8119258
00:51:37.210 --> 00:51:39.358 We already have plenty of biologics
NOTE Confidence: 0.8119258
00:51:39.358 --> 00:51:41.758 used in psoriasis and I think there
NOTE Confidence: 0.8119258
00:51:41.758 --> 00:51:43.865 is mounting data in case series of
NOTE Confidence: 0.8119258
00:51:43.935 --> 00:51:45.855 these being used for checkpoint rash
NOTE Confidence: 0.8119258
00:51:45.855 --> 00:51:48.034 as well as TNS for Stevens Johnson.
NOTE Confidence: 0.8119258
00:51:48.034 --> 00:51:50.120 Here’s an example of a patient I
NOTE Confidence: 0.8119258
00:51:50.176 --> 00:51:52.535 share with Sarah Weiss who had bullous
NOTE Confidence: 0.8119258
00:51:52.535 --> 00:51:54.312 pemphigoid which kept flaring when
NOTE Confidence: 0.8119258
00:51:54.312 --> 00:51:56.077 we slowly taper the Prednisone.
NOTE Confidence: 0.8119258

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Eventually, with the concomitant administration of Melissa Map were able to get the patient off criticism. And so in the final moments, I just wanted to highlight it’s not the forgotten child, because we see lots of toxicities from the cytotoxic drugs. But these I think you’re probably more familiar with because they’ve been around for a long time, but definitely, alopecia mucositis are kind of your hallmark toxicities. Nail changes are really important.
and he’s come up a lot to my clinic, especially young women with breast cancers on taxanes or anthracyclines. They get very painful paronychia subungual hemorrhage. They can lose the nail plate they can become infected, and so I think these toxicities are really important and then there’s the toxic rash of chemotherapy which can be hand foot syndrome or malignant intertrigo flow under the umbrella of toxic erythema of chemotherapy and these reactions occur.
through the ecrivain excretion of chemo in the skin of echoing glands. And we just wanted to do a brief shout out to my awesome research fellow who just matched into dermatology at Cornell. Rihanna and she was very interested in looking at the cutaneous toxicities in patients we’ve seen with skin of color which really make up a large proportion of our clinic. And while the diagnosis in general or similar to patients without skin of color, there’s clearly a very prominent finding of hyperpigmentation, which is very bothersome and very.
very prevalent after a rash are examples of that. Patients who get fatal, I go with darker skin. It’s obviously a lot more noticeable, and then there’s definitely a propensity for starring starring alopecia, but also just keloid scarring. Here’s an example of a patient with a keloid overport site which responded well to injection of triamcinolone, so I think it’s important to look at how these toxicities differ and in various populations. And in closing went to refer
00:53:46.700 --> 00:53:47.880 patients to our clinic.
NOTE Confidence: 0.8119258

00:53:47.880 --> 00:53:49.889 I think the short answer is anytime
NOTE Confidence: 0.8119258

00:53:49.889 --> 00:53:51.720 you need a hand, we’re really,
NOTE Confidence: 0.8119258

00:53:51.720 --> 00:53:53.490 really happy to see these patients.
NOTE Confidence: 0.8284332

00:53:53.490 --> 00:53:55.366 It is a privilege definitely for rashes
NOTE Confidence: 0.8284332

00:53:55.366 --> 00:53:57.242 that are higher grade that are impacting
NOTE Confidence: 0.8284332

00:53:57.242 --> 00:53:59.205 quality of life or that are recalcitrant
NOTE Confidence: 0.8284332

00:53:59.205 --> 00:54:01.155 to kind of conservative management.
NOTE Confidence: 0.8284332

00:54:01.160 --> 00:54:02.960 And definitely anytime there’s a red
NOTE Confidence: 0.8284332

00:54:02.960 --> 00:54:04.988 flag that I mentioned like skin pain,
NOTE Confidence: 0.8284332

00:54:04.990 --> 00:54:06.800 duskiness, blisters or plus definitely
NOTE Confidence: 0.8284332

00:54:06.800 --> 00:54:08.610 send those patients our way.
NOTE Confidence: 0.8284332

00:54:08.610 --> 00:54:10.766 So in conclusion, I hope you’ll you’ll
NOTE Confidence: 0.8284332

00:54:10.766 --> 00:54:12.880 see from this talk that cutaneous
NOTE Confidence: 0.8284332

00:54:12.880 --> 00:54:14.765 toxicities are not just common,
NOTE Confidence: 0.8284332

00:54:14.770 --> 00:54:17.017 but they’re also really important in the
overall management of cancer patients.

I hope that Dermot Earley dermatologic intervention can make a difference.

Remember that the EGFR acne reform rash often starts.

It is a sterile rash, but it can often be secondarily infected and you can get these unusual late perperek eruptions as well.

Hand foot skin from the anti angiogenesis drugs and definitely have associated pain.

We don’t have great treatments yet, so please consider referring patients to the study using a novel nitroglycerin.
ointment to treat it and then turning

to the checkpoint inhibitor rash.

I think the lichenoid one is

It’s common it can have associated

parictis and mucosal involvement

as well as bullous pemphigoid,

which frequently requires systemic therapy.

And if there’s any red flag,

signs or symptoms,

obviously you know you have to

treat these patients aggressively.

So I just wanted to thank really all

of my colleagues Ann and Metang.

Sir John Cradoc,

everyone at Smilow who’s supported
our clinic over the years. I have a really great team from the admins to the nurses to my chief residents, many of which have chosen Uncle Dharmas. Akarere Anatomy very proud and as well as my research fellows, an NYCC I. So if you ever have any patients, I’m very I’m always available. You can text me call me. Contact us and we’ll gladly see them. So thank you and I’ll take any questions. It’s terrific, thank you, Jonathan. Do you have questions from the audience? My recollection is that with the B RAF inhibitors there was a serious
problem with squamous cell carcinoma’s is

that yeah so

actually had a.

I had a picture of that slide.

I didn’t go into it too much but but we had.

We saw a lot of toxicities over the

years with the beer at inhibitors,

but with the concomitant administration

of the American hitters we’ve actually

seen that basically drop down to

near near 0 and so you can still get

phototoxic rash is another odd things,

like everything and awesome,

we’ve not seen squamous cells

develop in patients on be right

contributors to the American hitter.
Coadministration

perfect thank you.

Any other questions?

If not, thank you Jonathan.

Very interesting. Looks like

you're making a lot of progress in

managing these disorders.

Thanks for having me.